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THERE
SHALL BE
DARKNESS

by C. L. MOORE

FEBRUARY • 1942

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ASTOUNDING

SCIENCE-FICTION

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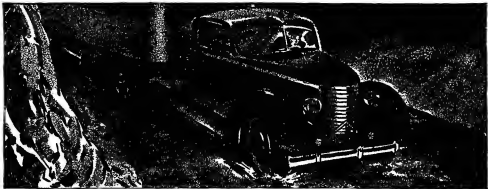
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SUPERNOVA CENTAURUS

More than once, science-fiction has considered the consequences of having old Sol become Nova Solis. Any such stories which suggested man could "dig in" here on Earth and weather the cosmic storm of sheer energy and gases heated to a point that makes "incandescent" as inadequate as "coolish" in reference to liquid helium, are plain silly.

But the violence of a nova is, on the cosmic stage, a fourth or fifth-rate spectacle. One of the most common of the more spectacular things, of course, but not to be rated with a direct collision of stars—itsself probably divided into two orders of spectacle; first order being a collision between a star made up of terrene matter and a contraterrene-matter star, and a second-order spectacle involving simply two stars of the same matter type. Either one of those latter two occurrences should be something worth seeing—from an immense and preferably intergalactic distance.

Third rank can be provisionally assigned to supernovæ. An "ordinary" nova—they seem to occur about one per year per galaxy—produces a star with a temporary brilliance of about Magnitude -5.0 . The Sun has a magnitude of $+4.8$ or so. Since the scale of magnitudes is logarithmic, not simply an arithmetic progression, such a nova would be about ten thousand times as brilliant as the Sun. Some novæ radiate as much as one hundred thousand times as furiously as the Sun.

But the nova condition, furiously violent though it is, is not utterly beyond restraint. Some stars—an entire class of suns known as the "brightest-star class," representing apparently the top limit of energy conversion which any stellar mass can keep under stable control—normally, continuously radiate æon after æon, at the same stupendous rate that ordinary suns can attain only in a stellar instant of explosion. Deneb, in the constellation Cygnus*, has a normal, natural radiation rate greater than that of most novæ. It, with an absolute magnitude of -8.7 , is 260,000 times as brilliant as Sol.

But no normal stellar mass can control the supreme violence of energy radiation that a supernova releases. Supernovæ in extragalactic nebulae have been observed and measured which radiated in their brief career, at a rate *equal to the combined, total radiation of an entire galaxy of hundreds of millions of stars*. Attaining an absolute magnitude of -16.6 , they can outshine four hundred million normal stars, ranging from perhaps 1/10,000th as bright as Sol all the way up

through normal 1/10th to 100 times Sol's brightness to "brightest star" class suns and a nova or two, perhaps, combined and totaled.

We've considered what might happen if Sol itself went nova. If it should go supernova, no worse could happen; Earth and all life on it would be fused and volatilized in either case. But what would happen to mankind if even one of the nearer stars other than Sol went into the supernova condition? Alpha Centaura, or, perhaps, the entire multiple-star system that is Alpha Centaura? It's conceivable—since we know, as yet, nothing whatever about the actual mechanism of supernova explosions—that the explosion of one of the multiple system might touch off the others. What effect would that terrible flood of energy have on Earth?

In effect, it would be equivalent to bringing all the stars of the galaxy—the four thousand or so we can see with the eye, and the other two hundred million or so, to within 4.5 light years, concentrating them in one spot—and then bringing all the stars of three or four more entire galaxies into the same spot.

The effect on Earth?

A big boom in the tourist business to South America, Africa, Australia and New Zealand, probably, some unusually brilliant aurora australis effects, and a minute amount of melting in the south polar ice cap, if it happened to occur during the southern hemisphere's summer. The ice caps wouldn't be affected at all if it happened during May, June, July or August. There might be a slightly warmer summer in the whole southern hemisphere; the northern hemisphere would be entirely cheated. Of course, if it happened that the explosion took place at such a time that the light reached Earth—four and a half years later—while the Sun was in the same direction from Earth, the spectacle would be very minor indeed. The nearby supernova would be fully visible even in daylight, of course, but a star-sized point of light in the daylight skies would pass unnoticed by any but careful watchers.

In fact, if that situation did occur, the only ones who'd be particularly burned up by the explosion of energy would be the unbearably frustrated astronomers. Imagine having a genuine, even a multiple, supernova in their own back yard, at an ideal observational distance—and the glare of the sun blasting into their instruments!

No, it isn't that a supernova is a rather inconsiderable sort of thing.

The trouble is that even the least of interstellar distances is a gulf of emptiness the mind of man cannot truly conceive.

The Editor.

* At this time of year, Cygnus is low in the northeast at dawn. It will be best visible at midnight in June. Rigel in Orion (abs. mag. -6.76 —17,600 suns) is low in the south now—the second brightest visible from Earth.

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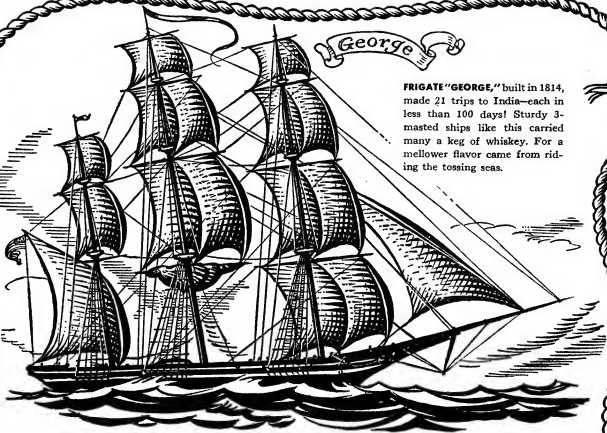
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THERE SHALL BE DARKNESS

By C. L. Moore

● Earth Empire was crumbling—and the captain knew it as he was ordered back, with the last of the troops stationed on Venus. The last civilization of the Solar System was falling into eternal darkness, as Mars and Jupiter had before it. And Venus could not be roused—

Illustrated by F. Kramer

Blue Venusian twilight filled the room where Quanna sat combing her hair before the glass. It was very quiet here. Quanna drew the long, pale strands through her comb with a somnolent rhythm, meeting her own eyes in the mirror. Reflected there she could see the windows behind her, blowing curtains that veiled the tremendous blue peaks which walled in Darva from the world. From far away a thunderous echo of avalanche shook the evening air a little and rumbled into silence.

No one—not even another Venusian—could have guessed what was going on behind the pale, translucent oval of Quanna's face, the unchanging dark eyes. She wore a blue-green robe the color of the evening sky over Darva, and in the blue dusk her hair took on a faintly greenish cast. She was thinking of murder.

Behind her the door creaked. A man in uniform came into the room wearily, running his fingers through his black hair. The green star of Earth glittered on his tunic. He grinned at Quanna.

"Get me a drink, will you?" he asked her in English. "Lord, how tired I am!"

Quanna was on her feet in a rustle of satin and a cloud of faint perfume. Her green-blond hair was so fine it seemed to float upon the air as she turned. If ever there was any betrayal of feeling upon Quanna's pale Venusian face, it showed tenderness when she looked at James Douglas, commander of the last Terrestrial Patrol left on Venus.

"Come and lie down," she said in her gentlest voice. Her English was almost as easy as his own. "You do need a drink, poor darling. You've been working late again, Jamie?"

He nodded, letting her draw him to the deep couch below the windows which opened upon the high blue mountains and the roofs of Darva. She stood for a moment watching his face as he relaxed with a sigh upon the cushions. The couch creaked a little beneath him, for Douglas was a big man, built in the tradition of his Scottish ancestors upon another world, almost a giant among the slim Venusians. He was barrel-chested, thick through the shoulders; and his heavy black hair had gone frosty at the temples quite definitely in the last few months. Jamie Douglas had had much to think about, in solitude, since the last dispatches from Base came in.

He buried his crooked nose in the glass Quanna brought and drank thirstily, letting the cool, watered whiskey go burning down his throat.

"Nothing like *segir*," he grinned up at the girl. "I'll miss it when"—he caught himself—"if I'm ever recalled to Earth."

Quanna's eyes veiled. An Earth woman would have pounced upon the implication in that remark and dragged it into daylight. The Venusian girl waited. They both knew she would weave it into conversation perhaps hours later, worming the forbidden information out of him irresistibly, imperceptibly, as she had so often done in the past. Douglas cursed himself silently and gulped *segir* again.

Quanna's gaze lingered on his face as he drank. Twenty years under the flowing cloud-tides of Venus had not bleached his dark skin to pallor, but they had set their own marks upon his face. The broken nose was a memory of a mountain ambush in his subaltern days, and the long, fading scar above one ear an insignia of the fight in which he had won his captaincy. Even as long ago as that Imperial Earth had begun to feel her fingers slip upon her colonial worlds, and there had been fierce fighting in the mountains of Venus. There still was, but it would not last much longer—

Douglas held out his emptied glass. "Another," he said, and loosened his tunic collar. "I'm tired."

Quanna laid a long, cool hand upon his forehead in a gesture of reticent tenderness before she turned away to the little pantry where the ice and the *segir* were. The long folds of her robe hid

what she was doing, but she did not drop a tablet into the drink this time. There had been enough in the first, and besides—besides she had information to draw out of him before she went away.

She pulled up a hassock and took her monochord harp from the wall after he had begun on the second drink, and began to pluck a plaintive melody from the single string, stopping it against its movable bridges with an intricate fingering. Douglas nodded in time with the music and began to hum, smiling at her.

"Funny," he mused. "You're a cosmopolitan, my dear, even if you've never stepped a foot off Venus. Scottish ballad on a Martian harp, opposed to Venusian melody. What an old song it is, Quanna." He began to sing the words softly, his voice unmusical:

*"The Otterburn's bonny burn,
It's pleasant there to be,
But there is naught on Otterburn
To feed my men and me—"*

He shook himself a little and quieted. Quanna saw something dark and unhappy move across his face, and she struck one of two quivering notes from the string and said in a voice pitched to the music, so that it scarcely broke the silence at all:

"I'd like to see Earth, Jamie. Could I go back with you?"

"I wish you could," he answered in a low voice. "It won't be easy, my dear—I'll miss so much on Venus. I—" He sat up suddenly and scowled at her under black brows. "That wasn't fair, Quanna! You wouldn't catch me like that if I weren't tired. Oh, yes, damn it, I suppose you'll have to know soon, anyhow. Orders came today. We're going back."

"The last of the Patrols," murmured Quanna, still stroking the harp to faint music. "Venus will be free again, Jamie?"

His heavy brows drew down again above the crooked nose. "Free?" he said bitterly. "Oh, yes, free for Vastari and his cutthroats, if that's what you're thinking of. There'll be no more safety anywhere on Venus, if that's what freedom means to you. All this culture we've tried to build up in our three hundred years will crash in—oh, three hundred days, or less, once the protection of the Patrol fails. You'll have barbarism back again, my sweet. Is that what freedom means to a Venusian?"

She smiled at him, her face pale in the gathering twilight.

"Jamie, Jamie," she rebuked him gently. "Our ways were good enough before the Earthmen came. And you'll be going home—"

He set down his glass half emptied, as if the thought had closed his throat. Looking out between the long, swaying draperies, he said heavily: "Oh, sure—I was born there, forty-odd years

ago. I suppose it's home. But—I'll miss Venus, Quanna." He reached out for her hand. "I'll miss you—I... I'm sleepy, Quanna. Play 'Otterburn' again, will you, my dear? I think I'll have a nap before dinner."

When Douglas was breathing evenly, Quanna put a pillow straighter under his black head, pulled a light coverlet over him and hung the harp away. In her bedroom she took down a velvet cloak of deep emerald-green and changed her sandals to riding boots of soft leather.

With the dark cloak hooding her, she paused by the door and touched a panel that slid inward without a sound. Not even the Earthman who designed the house knew about that panel, or about many other secret things which the Venusian workmen had built into the headquarters of the Terrestrial Patrol.

Quanna took a pistol from a shelf inside the panel and buckled it about her waist over the satin gown she wore. Her fingers lingered on a long, flat box on the shelf and she drew it out hesitantly, glancing over her shoulder around the empty room.

Inside the box, bedded in velvet, lay a dagger with a silver haft and a long glass blade. Quanna took it out of its nest and tilted the crystal to the light. Venusian characters were traced in water colors on the blade. On one side they declared in crimson, "Vastari Shall Be King," and on the other were the simple characters that spelled a name, "James Douglas." By a coincidence, the Venusian name for Douglas had the same meaning as his Scottish patronym in the ancient Gaelic—Dhu Glas. Both meant "the dark man."

The dagger Quanna held was a ceremonial weapon, that could be used only once. It had never been used—yet. The crimson lettering would wash off at the first touch of any moisture. And the blade would splinter in its wound. It was meant to splinter. It had been given to Quanna six months past, with great ceremony. She should have used it long ago.

She laid it back in its box and closed the panel quickly. She woke in the blue night sometimes, trembling, out of dreams about that glass dagger.

She drew the green cloak about her and went out swiftly. No one but the Venusian servants saw her pass, and they made furtive obeisance and looked after her with reverent eyes. So did the grooms in the stable where her saddled horse stood waiting. One of them said, "The waterfall cave, lady, up toward Thunder Range," and gave her the grave salute due Venusian rank. Quanna nodded and took the reins.

The Earth officer on duty at the outer gate never saw her pass. His men drew his attention away just long enough for the cloaked figure on

the padding dark horse to slip like a shadow out of the gate, and the young Earthman could have sworn afterward that no one had gone that way.

The horse took to the rising trail outside Darva with its padded gait that has a rocking-chair smoothness. Even the horses of Venus go furtively, on silent feet. This one climbed steadily up the twisting trail through the blue dusk which passes for night in the zone where Darva lies.

Night and day have only roughly equivalent terms in the Venusian tongues, but there is a slow rhythm of thermals over a broad belt of Dayside, caused by the libration of the planet, that gives something corresponding to them. There are periods of dim-blue chill, and periods of opalescent noons when the sun is a liquid blaze behind high mists. The intervals are months long in some parts of Dayside, but here the tremendous mountains create air currents of their own, and the cloud-tides have a much briefer rhythm, though still too varied to make Venusians clearly understand night and day.

The great blue mountains loomed purple and violet in the dusk as Quanna rode up the trail. She could hear countless waterfalls tinkling and trickling away like music all around her, a background to the slow, far-off thunder of a rockslide that shook the cliffs with its echoes.

The lifting crags that rushed straight up a thousand feet into the clouds were shocking to Earth eyes even after a lifetime on Venus, but Quanna scarcely noticed the familiar sheer cliffs of purple rock hanging like doom itself above her as she climbed. She had been born among these cliffs, but she did not mean to die here. If she had her way, she would die on another planet and be buried under the smooth green soil of Earth, where sunlight and starlight and moonlight changed in a clear sky she could not quite imagine, for all the tales she had heard.

The cavern she was seeking lay two hours high in the towering peaks above Darva. No one but a Venusian could have found it in less than days. Both Quanna and her horse knew the path well enough, but it was a difficult climb even for them, and when they came out into the cathedral-walled canyon where a thin waterfall swayed like smoke, the horse's sides were heaving with the steepness of the climb.

In these narrow walls the waterfall made a thunderous music. Quanna drew her cloak over her face and rode straight through the smoking veil of water, into the Gothic arch of the cavern beyond. She whistled three clear, liquid notes as she came, and heard answering music echo from the walls, piercing the roar of the waterfall.

Around two bends firelight flickered. Quanna slid off the horse into the waiting arms of servants, and went down a sparkling sandy slope toward the

fire. Light danced bewilderingly upon a fairyland of crystalline columns which slow centuries had built of dripping water here. It was an Aladdin cave of flashing jewels in the firelight.

Of the group by the fire, all but one man rose as Quanna came forward, her scarlet boots showing and fading with delicate precision beneath her emerald cloak. Quanna had been trained meticulously in every rite that befits a Venusian woman, and ceremonious behavior was not the least of her knowledge. Even her gait was traditional as she approached the men before the fire.

They had risen—all but the hooded old one—not in deference to her rank or her womanhood, for women are not held highly on Venus, but because she was an important emissary bringing news of the enemy. And had they had reason to think her news would be bad or her prestige in the enemy camp lowered, they would not have risen. Under the elaborate ceremony of Venusian courts is a basis of dog-eat-dog which shocks Earthmen. Venusians scorn the unsuccessful and toady to the strong with a certain courtliness which ingratiates even as it repels.

The richly colored robes of the men made points of jewel colors dance along the crystalline walls as they moved. A young man pushed impetuously out among them and came forward, his crimson cloak swinging from supple shoulders, his long fair hair swinging, too, as he came to meet the girl. The two of them were as alike in looks as blood relation can make man and woman.

Quanna took both his hands with the exact degree of deference which was due from her temporary man-status as important spy. Vastari's face blazed with impatient eagerness as Quanna exchanged the proper ceremonious greetings with the group of tribe leaders around the fire. It amused her a little to let her royal brother wait upon her. She met the fierce stares of the other men composedly, too accustomed all her life to seeing that avid hope for disaster in every face to notice it much now. No Venusian rises to influence without knowing very well the eager, searching stare of rivals hungry for a sign of weakness.

Last of all she smiled at the hooded figure by the fire, who gave her back a greeting in a harsh, hissing voice that was very pleasant to her ears.

"Well?" demanded Vastari, pulling her to a seat upon cushions by the fire as the last ceremonies fell silent and the leaders grouped wolfishly around to listen. "Well, how goes it, sister? Is the glass knife broken yet?"

"Not yet," said Quanna, making her voice low and confident. "The Earthmen have a fable about a goose that laid golden eggs. It's still too soon to kill ours, brother. The Dark Man gave me great news only a few hours ago." She used a Venusian term of time measurement which is so

complex that few Earthmen ever master it. Watching the avid eyes fixed upon her all around the fire, she went on: "The last Patrol is leaving Venus. The orders came in today."

Vastari smacked his ringed hands together and cried out something exultant in a voice too choked for articulation. The fire always smoldering behind his eyes blazed up with all but perceptible violence.

"Leaving!" he cried. "So they've come to it at last. Do you hear, all of you? That means freedom! Venus under Venusian rule, after three hundred years of Earth tyranny! Is it true, Quanna?"

"True enough, surely," said a harsh voice behind him. They all turned. The cloaked figure at the fireside had thrown back his hood from a crest of white hair and was smiling at them sadly now, horny lids drooping over his eyes. "I've seen it coming all my life, children. Mars was great once, too, you see." He lifted bony shoulders in a shrug.

"But aren't you glad, Ghej?" Vastari spun toward him, scarlet cloak flying with the motion. Everything he did had a quicksilver volatility. "The freedom we were fighting for, put right in our hands? No more hiding in the mountains for us, Ghej! No more Earth laws! A free Venus, after three hundred years of tyranny!"

The old Martian lifted his peaked brows.

"Is freedom always good, then? Freedom can mean anarchy, my boy."

Vastari snapped his fingers impatiently. "Out of anarchy, something may grow," he said. "Under tyranny, nothing can. You'll help us, won't you, Ghej?"

Ghej looked up somberly under his triangular lids. "Against Earth? You don't need help against the Imperial Planet, son. Earth has brought her own ruin upon her, and nothing we can do will affect that. I know. I saw Mars fall."

He put his chin in his hand and stared into the fire under heavy lids. Ghej had a strange way of talking about the past of millenniums ago as if he himself had been present. It was the result of the vivid three-dimensional pictorial records by which all Martians learn their history in childhood.

Vastari's face, as he turned away, was unconsciously eloquent with the impatience of the young for the dreaming old.

One of the tribe leaders leaned forward, jutting a scarred, wolfish face above his robe of apricot velvet. His eyes glittered at Quanna.

"She brings news the old Martian could have told us years ago," he declared, his voice jealous and eager. "That same news my own spies will bring me tomorrow from the city. What other reasons has she for calling herself our equal? I

say, let her kill the Earthman and go back to the harem where she belongs."

There was a rising of voices around the fire, some few in agreement, most deprecating not so much the sentiment as the crude way in which it had been put. The true Venusian prefers his malice more deftly expressed.

Quanna faced them equably. Showing no resentment—it did not behoove a woman to resent openly anything a man might say—she declared in a voice pitched low:

"To us in the city it doesn't look so simple, lord. With the right knowledge, we may glean much from the Earthmen before they go."

The scarred hillman pounded his velvet knee with a clenched fist. "I say fight as we planned!" he roared. "Fight and conquer and loot, before they can get away from us! It was good enough for our fathers, wasn't it? What do we want a new plan for? Kill and loot, and all this waiting be damned!"

A babble of voices echoed him around the fire, cut off in a moment by the brilliant scarlet of Vastari's leap, his red cloak streaming. There was a flash of glittering colors in one swift arc and a thud of weapon on flesh, all too quick for the eye or the brain to follow clearly.

Then Vastari was standing over the huddled hillman, the scarlet cloak settling in bright folds about him and his wickedly jewel-studded blackjack swinging ready for another blow. The hillman nursed his smashed nose, blood running down beneath his hand to spatter upon apricot velvet.

Vastari's eyes glittered dangerously up at the rest under lowered brows as he stood above the silenced rebel, head sunk between his shoulders. The bloody blackjack swung in short, twitching arcs that caught the firelight in jeweled glints.

"Has Ystri any friends here?" he demanded softly. No one spoke. Vastari bent and deliberately slapped Ystri's face twice, heavy blows that rocked his head. The hillman was nearly twice Vastari's size, but he made no move to retaliate, only crouched there masking his broken nose behind a bunched hand and glaring up with reluctant respect in his eyes.

The same respect showed in every subdued face around the fire as Vastari turned away with a certain swagger, hooking the blackjack back in his belt, careless of the blood smear upon his satin tunic.

"This isn't the way to freedom," Vastari said, reseating himself beside Quanna. "If we quarrel among ourselves, we'll go the way so many went before us. We're no guerrilla band, squabbling for loot! Freedom is worth a little sacrifice today if we can take all Venus tomorrow! It was not under slavery that Earthmen conquered their em-

pire. They were free men, fighting for themselves. We must be free, too, if we can hope to conquer Venus. Free of Earth rule and free of all petty greeds among ourselves. We aren't children, snatching at toys. We're free-born leaders fighting to drive Earthmen off our soil and rule Venus under Venusian law."

The fire of the crusader kindled in Vastari's voice as he went on. "If Ystri had his way, he'd attack Darva and die. The Earthmen have weapons we can't hope to conquer. And even if we did—what would happen? Ystri and his kind would loot and run back to the mountains, each to his separate stronghold, each with all he could carry. And presently each would envy his neighbor's loot, and in a little while you'd all be back where I found you, little nations too busy with your petty squabbles to unite against Earth rule or the raiders from Darkside or anything else that threatens you. Fools like Ystri made Earth tyranny possible on Venus. Fools like Ystri will bring it on us again if they ever return, unless I can unite us all. Union and freedom! Think of it, men!"

Vastari stood up and began to pace the shining floor with long, nervous strides. The heads of his hearers turned to follow him as if hypnotized. His voice shook and glowed with his passionate sincerity, and the bright light of avarice kindled in the eyes that followed his pacing.

"I tell you, it will be worth fighting for! We must be rid of the Earthman, but we mustn't ruin ourselves to drive him out. There will be much to do after he's gone—leaving his weapons behind him. We must have those weapons! We can't conquer Venus without them. And that's why Quanna must go back to Darva and learn more of their plans. Somehow, we must possess what the Earthmen now possess, if we intend to rule Venus as they did. That will take courage—cunning and courage. And after that—" Vastari paused, looking up into the glittering shadows of the ceiling with eyes that saw something far away and wonderful. "After that—freedom and Venus will be ours! The Earthmen fought for freedom long ago—and won it and conquered the stars with it! Our turn is next. When the Earthmen were first fighting against tyranny they sang an old battle song whose words might be our own. Quanna learned it from her Earthman. I'd like you all to hear it. Quanna—"

She bent her smooth fair head becomingly and began in a low, clear voice to chant as well as she could in Venusian to the tune of a very old drinking song of Earth, once the battle anthem of a nation that had fallen long ago. The listening men sat silent, firelight glittering in their eyes. It was a curious scene; surely the song had never been sung in a stranger setting than this crystal-ine ice cavern with its pale, sparkling shadows,

to these wolfish men in their gorgeously colored robes.

*"Oh, thus be it ever when free men shall stand
Between their loved homes and the tyrant's oppression,"*

sang Quanna. Vastari's fanatic young face lighted up at the words; his lips moved soundlessly, mouthing them.

*"Then conquer we must,
For our cause, it is just,
And this be our motto: 'In God is our trust!'
And the Star-Spangled Banner in triumph shall wave
O'er the land of the free, and the home of the brave!"*

Behind the group the gray Martian listened enigmatically, his leathery face sad.

Jamie Douglas awakened to a room translucent with the blue twilight of the ebbing cloud-tide. His mind was clear and relaxed for a moment, as tranquil as the twilight in the room. Then memory came back, and the familiar heaviness of spirit, and he sat up slowly, the crease deepening between his black brows. Quanna sat by the window where the breeze just lifted her fine, pale hair. When she heard him stir she turned, tranquillity in every gentle motion she made.

"How well you slept," she murmured, rising. "I couldn't bear to wake you, Jamie, you were so soundly asleep. You must have been very tired, dear."

He leaned forward on the edge of the couch, forearms crossed on knees so his big shoulders hunched. He looked up at her under his brows rather as Vastari had looked up in the crystal cavern, but with all the difference in the world in his dark, weary face.

"I had a dream," he said somberly. "I thought I was back in Norristown, at the edge of the Twilight Belt, and the mountaineers were attacking. I thought a spear went through me, right here—" He laid a hand on his tunic just above the belt buckle. "It was so real it still hurt for a moment after I woke up. But in the dream it didn't hurt at all. I thought it nailed me to the wall, and I pulled it out and—" He laughed and hesitated. "Dreams are silly things. I thought I led a charge brandishing that bloody spear, and we drove the attackers back." He laughed again, but looked up at her under the black brows with a dark and somber gaze, no laughter in his eyes.

Quanna shivered a little under her blue-green gown. "Don't look at me like that," she said lightly. "It was only a dream. Wouldn't you like some coffee, Jamie dear? You missed dinner, you know."

He ignored the question. "What was it you were playing before I fell asleep? 'Otterburn,'

wasn't it?" He hummed the tune, and words came back to his memory.

*"Oh, I have dreamed a dreary dream
Beyond the Isle of Skye;
I saw a dead man win a fight,
And I think that man was I—"*

"The Isle of Skye," he repeated after a long moment. "I wonder! The old Isle of Skye's on Earth, but you and I are on a new one now, Quanna. From Earth, wouldn't Venus be the Isle of Skye?"

She shook her head, the fine hair clouding about her face. "I can't picture it at all. Stars! Shall I ever see them, Jamie?"

"Not from Venus. And Earth's no safe place to be just now, my dear. No, you're safer on your Isle of Skye. As for me—" He shook his black head. "Now if I believed in dreams as my people used to do, I'd take that one for an omen." He stood up. "Did you say something about coffee? Lord, how I must have slept!"

Quanna's smile as she rose had the clarity of uttermost innocence. When she opened the door the tall figure standing there with knuckles lifted to knock made her jump a little.

"Lieutenant!" she laughed. "You startled me."

"Commander here?" Lieutenant Morgan, second in command at Darva Post, gave her an impassive stare from sleepy, brown eyes.

"Come in, Morgan," called Jamie from the room beyond. "All right, Quanna. Run along and bring that coffee."

Morgan entered with the loose-jointed, deceptive laziness that colored everything he did.

"Don't like that girl," he said, looking at the closed door under his lids.

Jamie laughed. "You don't like any Venusian."

"Damn right I don't. You'll wake up with a knife in your ribs some day, commander."

Douglas said: "Not Quanna's knife."

"Think not?" Morgan shrugged. "By the way, Vastari was up in the hills last night." He glanced out of the window toward the great leaning cliffs above Darva, where the light was broadening as the morning cloud-tide thinned. A long rumble of rockslide shook the window frames as he spoke.

"Attack?" asked Jamie.

"No, just a powwow. They're up to something, commander."

"Oh, I suppose so. They usually are. Any ideas?"

"Two to one they know we're leaving. That means ambush somewhere on the way out."

"Or attack here?"

Morgan shook his head. "Too risky. Vastari's no fool."

"Maybe not open attack. But they'll hate to see us leaving with all our artillery. Vastari'd like

that for his campaigns in the mountains. He'll try to get it, and he'll try hard."

"Preferably by foul means," put in Morgan with a grin. "He—"

A gentle tap at the door interrupted him. Quanna looked in deprecatingly.

"A caller, commander," she said. "The Martian trader, Ghej—"

Jamie stood up quickly. "Ghej! Come in, come in! It's good to see you. Quanna, how about coffee for us all?"

The cloaked gray figure came in with the odd little shuffle in his gait that is so typically Martian. Jamie had a sudden Scots premonition that vanished in a moment and left him deriding himself, but in that moment the gray-robed figure had looked like Death shuffling in to greet him, holding out its hand. He remembered his dream, and the buried Celtic credulity of his forebears rose into the light just long enough for him to wonder if he were to leave Venus after all, if his longing to stay were to be granted more grimly than he

had bargained for. The Isle of Skye, the morning star—

*"I saw a dead man win a fight,
And I think that man was I—"*

"Superstitious fool!" he apostrophized himself half angrily, and held out his hand to Ghej.

"I would not have liked to miss you, commander," said the Martian in his precise English, accepting the chair Morgan pushed forward. "I hear you are leaving Venus soon."

Jamie threw up his hands in a gesture of despair. "Half Venus seems to have heard about it already."

Ghej's pointed upper lip drew down in his beak-like smile. "I have been liquidating my assets for over a year now," he told them, "preparing for this day." The smile grew one-sided and twisted down a bit sadly at the corners. With his left hand he made the crook-sign of ancient Mars in the air. "Remember?" he asked. "It happened to Mars, too. I know about Rome and America and the other great fallen empires of Earth. I



She had saved him—and, knowing her people, he knew she had some purpose, some demand to make—

could see this coming from a long way off. As you could see it, commander."

There was unconscious sadness in Jamie's own smile. "Officially this is known as 'temporary consolidation,'" he told the Martian. Ghej lifted deprecating brows and pulled the long upper lip down in a grimace. He was too polite to say what all three men in the room were thinking.

This is the end of the Solar Empire of Earth. This is the last Patrol, out of all the strong network that once bound the worlds together by unbreakable chains of men. The links are loosening; the Empire is falling apart. Earth evacuates the planet it has ruled for three hundred years. The Green Star of Earth is an outworn emblem now. Barbarian hordes from the outer world are pouring down upon the Imperial Planet, armed with the weapons Earth taught them to make, that Earth might be destroyed. Little by little her grasp has let go. One by one the Patrols go home to defend the mother world. This is the last.

"Venus will be a different world without you," said Ghej, smoothing his cloak over one knee. "It will be interesting to see what happens to the Terrestrialized cities—all the clean, broad streets, the markets, the busy shops—how long will they last?"

"Just as long as it takes Vastari to burn them," Morgan declared bitterly.

Ghej nodded. "Vastari probably justifies himself in his own mind. They say he has reason to hate Earth, you know. He'll want to destroy everything on Venus that has a Terrestrial background."

"Three hundred years of Earth rule," mused Jamie. "Three hours in the life of the race! Sometimes I wonder if twenty centuries would have been enough to make an impression on these people. Sometimes I wonder if everything we've done on Venus hasn't been wholly in vain for both worlds. Six months after we've gone, the Terrestrialized cities will be gone, too. What the fire leaves the jungles will take over. Cementine huts will rise where cementine huts stood three hundred years ago, and there won't be a trace left of anything Earthmen tried to do. No more cities where children can grow up in safety. No more protection for the farms that provide against starvation in famine seasons. Oh, damn Vastari!"

"He can't help being a Venusian," said Ghej mildly.

Jamie slapped his chair arms with impatient palms. "I know. It's just that—well, I've been on Venus a long time now. I fought at the second siege of Norristown when I was twenty. I flew with Cressy when he explored the Twilight Belt. Here at Darva I've seen the city grow into something to be proud of. I got the appropriations myself to build the storehouses that tided three whole tribes over the last famine season. When

I think of Vastari wiping it all out the moment my back's turned, I could strangle him with my bare hands!"

"The Venusians are like quicksilver, commander," Ghej said thoughtfully. "They slip away from contact with the logic of other worlds."

"I know. It's because they're still barbarians, isn't it? Perhaps they'll always be barbarians. They have no words in any of their languages for 'loyalty' or 'honor' or any of the high-sounding ideals we live by. They have no values above the selfish animal values of survival. They're incapable of civilized thoughts as we define civilization. I tell you, Venus is stagnant already, for all her rawness. There's barbarism at both ends of the social scale, you know, and the men of Venus have gone from one barbarism to the other with no interval of true civilization between." Jamie slapped the chair arms again.

"Think of Norris, colonizing Venus. Can you imagine any Venusian enduring such hardships, simply for an ideal? Remember the first siege of Norristown? The colonists could have taken ships for home any time that year, and abandoned Venus and everything Norris and his men died to establish. But they didn't. They stuck it out until the rescue ships came, a whole year late. Did you ever read the story of that siege, Ghej? Unceasing attack from the swamps and the seas, unceasing fevers and disease from the unknown plagues of Venus. But the colonists had a greater fever than anything Venus could inflict—the feverish dream of empire that was sweeping the Solar System then.

"The soldiers died on the walls one by one, and the civilians took up the battle. When the spaceship came in at last with provisions, they found the women and children, the invalids and the wounded manning the guns, and not one able-bodied fighting man left on his feet.

"That burning idealism has no roots in Venusian minds. And yet, you know, there's something irresistibly fascinating about the planet and the people. It's raw and lusty. It's the future. Venus from Earth is the morning star, and I think that's more than symbolism now."

Jamie got up and walked to the window, looking out over the roofs of Darva toward the tremendous blue mountains where the cloud-tide thinned to let brightening daylight through.

"Back on Earth I'll be a misfit. An outlander. Earth is a world of orderly gardens and tamed seas and landscaped mountain ranges. The people are set in a pattern. You know to a syllable just how they'll react to a given situation. It makes you yawn to think of it when you've spent twenty years on Venus under these gigantic mountains, where the people are as wild and unpredictable as the cloudbursts.

"I've forgotten the polite formulas of Earth that cover every possible situation. They've got a tight little society there and I won't fit into it anywhere."

Jamie was silent, and for a long moment no one spoke. Jamie's mind went on:

"Not that it matters how Earth accepts any of us colonials. I have an idea we've seen the last of our little play-paradises with their formal rules. They don't tell us much here on Venus, but the last news I heard was of barbarian bases spotted through Earth like a plague, and barbarian invaders pouring down out of the sky in ships we taught them how to build, with weapons we put into their hands many years ago."

He couldn't say that aloud, not even to Morgan. Certainly not to an outworld trader, however well he knew Ghej. He couldn't say what had burned in his mind for so many months now, the terrible fear that had come to him and to the civilized world generations too late to save it.

For the era of civilized man was ending. Jamie almost wished he hadn't had the leisure to see it coming. He wished he hadn't read the old books, for he could see the cycle closing as it had closed for other cultures long ago.

"They say we're 'temporarily consolidating,'" he thought, staring out at the great cloud-marbled mountains. "I know better. I've got a perspective here they don't have at home, or won't admit having. I know the signs of rottenness, and the signs are plain on Earth. It'll take a better race than modern man to win back what we're letting go."

"And there is no such race. The Venusians might have done it—but they won't now. Another few centuries and we might have instilled some conception of what idealism means into those slippery quicksilver minds. I don't know. We'll never do it now. And the Venusians were our last hope."

"No other race remains. The barbarians who are conquering Earth are decadent barbarians. The other worlds of the empire are either old civilizations, more tired even than we, or sub-human tribes which no amount of teaching could lift much above apehood."

"And so the greatest empire that mankind ever knew is crumbling from within, without a hope of rebirth."

The strong fragrance of coffee entering the room like a tangible presence broke the little silence that had fallen upon the three men. Quanna came in smiling, followed by servants with trays. Her deep, quiet eyes saw everything readable on the faces before her, though no eyes caught her looking. She poured the coffee deftly.

When she handed Ghej his cup she set a small silver platter of bread at his elbow, according to the ceremonious Venusian custom, observed even among outworld people on Venus. There, as on

Earth, bread symbolizes the staff of life, and guests are served with it whenever food is served and whether they intend to taste it or not.

Ghej's horny-lidded eyes flickered at the plate and then slanted a glance up at Quanna. She caught it wonderingly. Something was afoot, then. Something concerning Jamie, for in the elaborate symbolism which governs all Venusian living, bread is the emblem for leader or head of the household.

"I think you misunderstand Vastari, commander," said Ghej, sipping his coffee. "It's true that no Venusian seems to comprehend what other worlds call idealism. But, in his own mind, Vastari is probably quite sure of his rightness. He talks of freedom, you know."

"Freedom to loot and burn, and starve afterward!"

"Perhaps," Ghej nodded, and began to toy with the silver knife that lay across the bread platter. "I think so. But then I represent the past, gentlemen. My world died millenniums ago. You yourselves are the present; your world is passing. Vastari is the future. What he does with it only the future can show. You and I will not be here to see." He shook his crested head and picking up the knife, drove it idly halfway through the loaf of bread beside him. Under the horny lids he flickered a glance up at Quanna.

"As a trader among the mountain tribes, commander," he remarked irrelevantly, "it has been my business for many years to fathom Venusian mentalities as nearly as any outworlder can. I've seen a hillman, for instance, take revenge for a blow by striking not at his attacker but at his attacker's enemy, in the dead of night. None but a Venusian could clearly understand the tangle of motives behind such a revenge—"

"Excellent coffee, my dear Quanna. May I have another cup?"

In the blue twilight of Jamie's bedroom nothing moved but the softly blowing curtains. Jamie's regular, hoarse breathing was the only sound except for an occasional, far-away thunder of rock-slide and the receding footsteps of the sentry who paced outside the commander's quarters.

Jamie's sleep was deep. Quanna had seen to that with the nightcap she had served him. Now she sat in the farthest corner of the room, where the shadows hung as blue as if in some submarine cavern, far down under Venusian seas. She sat in perfect stillness, unwinking eyes fixed upon the window beyond which the shadow and the footsteps of the sentry passed and repassed.

She was grateful to Ghej. She was not sure how he could have guessed about her feeling for the commander, but she knew he had guessed. He was fit, almost, to be a Venusian in his sensitive perception of nuances. She knew, too, how it

had amused him to tell her by symbolism and in-direction under the very noses of an oblivious audience that Ystri planned to murder Jamie. Yes, Ghej had lived long enough on Venus to think almost like a Venusian himself.

As she waited here in the twilight for the assassin she was not unduly perturbed. She knew enough of her race in general and Ystri in particular to be sure he would come alone. He could not wholly trust any coplotter not to betray him to Vastari, and he would want the glory alone if he succeeded.

The sentry's feet gritted up and down on the pavement outside; Jamie's heavy breathing measured the silence in the room. Quanna sat unwinking and waited.

She could not have said what warned her when the time came. Certainly no sound. But when the sentry's tread approached the far end of his beat and a shadow slid up to the thin grille that masked the windows, Quanna was at the grille and crouching low against it before the shadow itself was aware of her. It must have been something of a shock to the newcomer to find a second figure six inches away just inside the screen. The shadow started back with a muffled gasp.

Quanna breathed, "Ystri—look!" and let the light from the gateway shine for an instant on the snub-nosed gun she held.

"Quick!" whispered Ystri, speaking indistinctly because of his injured nose. "Let me in! The sentry—"

"No." Quanna's voice was flat. "I know what you want. Not tonight, Ystri."

"Let me in," Ystri demanded fiercely, "or the commander will know tomorrow that you are a spy."

Quanna thought he meant that. His prestige had been severely damaged by Vastari's blow; he might do anything to discredit her and Vastari through her.

"Not tonight," she temporized. "I have plans—Afterward, you may kill him."

"I don't trust you!"

"Tomorrow—"

"Traitor!" hissed Ystri. "Let me in! With him dead, there'll be confusion enough to steal weapons, even take the town! In Vastari's name, let me in!"

"Not tonight! Tomorrow I'll prove myself—kill him if you can, then. But not here."

"Where then? You're lying."

"It's the truth. Tomorrow I'll bring him into a trap for you. The mangrove forest, say? At cloud-ebb tomorrow?"

Ystri peered at her doubtfully in the blue dimness through the grille. The sentry's returning feet grew louder on the pavement, but Ystri hesitated for one last mistrustful moment.

"Is this the truth? Do you swear it by Vastari?"

"I swear. I'll bring him into the mangrove forest tomorrow, to kill if you can."

Ystri scowled at her in the twilight, seeing a certain sincerity upon her face that made him accept the promise reluctantly. That, and the gun gleaming dully in reflected light.

"Tomorrow at cloud-ebb, then—or you both die," he growled, and his shadow melted from the grille without a sound. Quanna sat back on her heels and looked after him, her eyes deep and expressionless.

"The mangrove forest?" Jamie's voice was doubtful, but he turned his horse toward the upward path. "That gloomy place? Sure you want to ride that way?"

Quanna smiled at him under her hood of emerald velvet. "You said I could choose—and it's our last ride together on Venus, Jamie dear."

"Oh, all right. I always get my feet wet there, but—have it your way."

"I think it's a lovely place, Jamie. Listen, Jamie, I'll sing to you—a going-away song."

The Martian monochord harp hung at her saddle. She laid it across her green velvet knee and began a soft Venusian chant with a ringing call at the end of each stanza. Partly it was to amuse Jamie, partly to warn the hiding Ystri of their coming. It would amuse Ystri, too, in a grim sort of way, for this was a going-away song indeed, a Venusian dirge for a man about to die.

The mangrove forest lay high in a narrow canyon above Darva. Jamie and Quanna had ridden here more than once before, for the pleasure of walking the narrow mossy ways that wound over the water. The forest filled a valley between peaks veined with waterfalls whose music tinkled all around the canyon. It was half swamp, half lake of clear dark water out of which gigantic mangroves rose in arches and columns and long green aisles. The labyrinthine paths wound intricately over the great gnarled roots which stood above the water.

The glassy surfaces gave back such faithful reflections that the forest seemed double, suspended in green space. It was like walking in a dream to stroll along the winding, mossy ways and watch one's own reflection swimming dimly underfoot.

Not even the padding Venusian horses could walk these paths. Jamie and Quanna dismounted at the mouth of the canyon and entered the glassy forest in silence except for the music Quanna stroked now and again from her harp. She was watching for Ystri. He would not be easy to see, she knew. It was not for nothing that she had worn her green cloak today, and he was certain to be green-clad, too, and almost invisible in the bewildering reaches of the forest.

They had strolled a long way into the mirrory labyrinth before a sliding motion among the trees caught Quanna's eye. She had been sure he would come alone, and she could see now that she had not been mistaken. She had been sure, too, that he would not use a gun. He wanted Jamie dead for many reasons. The chiefest was to forestall Vastari of the glory of that murder, and Ystri would want to use the long Venusian dagger for that pleasure. And so he would have to creep close enough to stab Jamie in the back, and there was no danger of a random shot across the water.

But Ystri was wary. Jamie had an evil reputation among the outlaws and Ystri was not one to risk having this particular quarry turn to face him before his blow drove home. Quanna had to lead the way deeper and deeper into the forest, where the great mangrove roots made paths broad enough so that no reflections showed in the water, before the green moving shadow that was Ystri drew near.

If Quanna's heart was beating harder under her emerald robe, no hint of it showed in her face when she decided the time was near to do what must be done.

"I've a surprise for you, Jamie dear," she said, pausing to face him under a great vaulting arch of green. "Will you wait for me a moment here? I'll be back in five minutes." And then, because the danger was near and great just then, she tiptoed and took his dark face between her hands and kissed him quickly on the mouth.

Venusians are not demonstrative people. Jamie stared after her as she turned swiftly away, the green robe swirling. Her long, dark look and the unexpected kiss had carried an air of foreboding that made him loosen the gun in his belt and watch the forest around him with vague uneasiness, for no tangible reason. And that result, perhaps, Quanna had foreseen, too, when she kissed him. There are double motives behind most of the things Venusians do.

Quanna went swiftly, on soundless feet, along a pathway that twisted out of sight. Her green reflection went with her in the water, smooth and stealthy. She was making a circle as directly as possible in these winding ways, and in a few moments she saw ahead of her another green and stealthy figure moving forward from tree to tree. Quanna smiled.

Jamie had lighted a cigarette. In the glassy stillness the click of his lighter was audible from far away, and the pungency of the smoke spread through the heavy fragrances of the water jungle. She could see his dark head down an aisle of greenness; he had set his back to a tree and was smooching desultorily, flicking ashes into the water and watching the spreading circles that they made.

Ahead of her the green shadow of Ystri slipped

forward with a sudden rush, quick and deadly. A knife caught the light and glinted.

Quanna covered the distance at a soft-footed run which the moss hushed. Her green cloak unfolded like a hover of wings behind her and the flash from beneath it rose an instant before the glimmer of steel in Ystri's fist rose.

There is no sound quite like the solid thud of a dagger driven hilt-deep into flesh, hard, with a full-armed swing. Jamie knew it from all other sounds and had spun with his gun in his hand before Ystri himself knew quite what had happened to him. Ystri must at first have felt only the heaviness of the blow which even from behind was hard enough to knock the breath from his lungs. He gasped once for air, and whirled to face Quanna, open-mouthed.

His face contorted with fury when he realized what had happened and his second gasp was for the breath to betray her, but she had struck deftly and a gush of bright blood, startlingly bright, smothered the words on his lips.

There was no need for explanations. Jamie holstered his gun slowly, seeing that he would not need it. Quanna's expressionless eyes watched Ystri fall, the glare of fury in his eyes to the last as he mouthed futilely against the torrent of blood frothing over the apricot velvet tunic which his green robe fell back to reveal. There were old bloodstains there, too. It was the same tunic he had worn in the cavern. She thought briefly that the blood-letting which her brother had begun two days ago the sister had finished here.

Jamie was staring at her questioningly over the body. It lay with one arm dragging in the water; Quanna put out her foot and rolled it over without emotion. It slid into the water with scarcely a splash and the mirrory surface closed over the brilliant colors of apricot and green, bright fresh scarlet and the brown of old blood. Above the spreading circles Quanna looked up to Jamie and smiled.

"I have saved your life, Jamie," she said.

He bit his lip. Lives are not saved gratuitously on Venus. It is a matter of investment, done deliberately with a specific price in mind, and among Venusians if the price is refused the life is forfeit, then and there or at any time thereafter, without penalty of a blood-feud from the victim's relatives. This relentless code is as near, perhaps, as Venusians come to maintaining an abstract ideal about anything at all.

"I suppose there's no use asking what's behind all this," said Jamie, nodding at the water which had closed over Ystri's body.

Quanna lifted a brow. "Oh, that. I saw him—I had a favor to ask of you. Is there a better way to buy it than this?"

He knew he would never be told any more of

the story than that. No use asking. He lifted his shoulders resignedly.

"You saved my life," he acknowledged. "What to you want?"

"To go back to Earth with you," she told him promptly. "You'll take me, Jamie?"

He squinted a curious glance at her. She might have asked for money, weapons, anything but an intangible like this. An intangible he could not give her.

"Quanna," he said gently, "don't you think I'd take you if I could?"

"You are commander. What can stop you?"

"Look, dear." He stepped forward over the bloodstains on the moss and laid his hands on her shoulders. "Earth's a . . . an armed camp. No one's safe there now. You never saw cities bombed—you can't imagine the life you'd have to lead if you came back with me."

"I'm not a child, Jamie." She lifted unfathomable dark eyes to his.

"I know—I know." He tried helplessly to make her understand. "But I'm not going home for pleasure, Quanna. I'm going to fight. I think we'll have to go on fighting there as long as . . . as long as we can. If I took you along, you'd be in constant danger. There'd be forced march after forced march, front-line duty—life under siege at the very best. And at worst—without me, what would become of you?"

"I'm willing to risk all that, Jamie dear."

He let his hands fall. "I can't, Quanna. Even if I could let you risk it, I'm not free to handicap myself with a woman. I'm going home to fight, my dear. Don't you understand? Earth is calling us back because of desperate need. I'm a soldier of the Imperial Planet—I have no right to divide my efficiency in half because I've a woman to look out for everywhere I go—"

"But why must you go at all, Jamie?" She said it very gently. "What can one man mean among so many? Why not stay here on Venus, with me?"

His black brows met above the crooked nose.

"If I could make you understand that, my dear," he said wryly, "I wouldn't half so much mind going."

And so it went on, for a long while. To Quanna the words that Jamie used were often as meaningless as the motives behind them. She wondered afterward that she had not used the dagger which tradition gave her the right to use, upon this dark and stubborn Terrestrial who was so intent upon destroying her happiness and his own.

Long and hotly they debated, standing over the bloodstain on the moss with the forest glassily quivering all around them. When they turned home at last along the reflecting pathways, Quanna went submissively, her hooded head bent at the angle suitable to a Venusian woman in the presence of her lord, but she had not surrendered.

She would have to change her plan; that was all. If he would not take her of his free will, then she would force him to it. She would find some lever stronger than the one which had just failed her. For he knew and she knew that she would not take the life she had saved. She had not killed Ystri for that.

Yes, she would find a lever, and she would have no mercy in her use of it, for it would take some intolerable force indeed to swerve Jamie from his course.

When the blue twilight was deepest over Darva and the Terrestrialized city slept, Quanna went up the winding stair which led to the roof of the commander's quarters. It was the dark of the cloud-flow, but she carried no light. Artificial lighting is rare on Venus, which never knows true darkness on Dayside. Quanna moved unerringly through the blue gloom upon the roof.

She carried a sheaf of slender, hollow rods under her arm, and in one hand a basket of decaying flowers. The heavy, noisily sweet fragrance of their dissolution is irresistible to several species of Venus' flying creatures, most of them poisonous.

Quanna jointed her hollow rods together until she had a long, slender pole, about whose upper end she twined garlands of the heavy-smelling, rotting blossoms, working deftly in the near-darkness. Darva was hushed below her. From the mountains behind her to the mountains before blew the fragrances of jungle canyons; and the rumble of rock-slides thundered from far away.

Darva was built like a medieval fortress, a walled plateau guarded by crenelated mural towers at regular intervals all around the city. The commander's quarters were built into the upper end of the wall, one with it, so that the roof upon which Quanna stood looked down sheerly over wall and plateau edge, toward the tremendous blue mountains beyond the river. She had taken refuge in a battlement and was waving her long, flower-twined pole in slow circles.

In an incredibly short time a whirl of wings sounded in the deep, blue twilight and a night-flying shape swept out of the dimness toward the pole. Quanna braced herself against the battlement and continued to fish the air streams blowing toward the cliffs. More wings—more swooping, dim shapes out of the twilight as the cruising nocturnal creatures of the mountains began to catch that intoxicating odor on the wind. Presently she was the center of a whirling, dipping swarm of silent things, all making circles around the decayed flowers like moths around a light, all in the uttermost silence except for the beat of wings.

When she saw what she wanted, she lowered the pole until the flowery tip was within reach, and she put out an intrepid hand into the midst of

the hovering creatures and seized a dark, winged horror by the neck. It beat at her furiously with scaled pinions a yard long, and its thick, muscular, serpent body lashed at her face. Composedly—she had handled the winged snakes since childhood—she put down the pole and went deftly to work over the thrashing thing whose great blue-scaled wings winnowed the air. The blue, reptilian body wound and rewound about her forearms and venomous hissing punctuated the wing beats. Quanna paid no attention. Deadly poison though the winged snakes are, they can be safely handled by those who know how. This one bote a small, pale brand on its flat head as token that it had been handled before.

When Quanna tossed it into the air a moment later it shook outraged wings, dived at her once or twice with fierce hissings, and then hurled itself once more into the group still circling about the rotted blossoms on the pole.

Quanna went forward confidently, hesitated a moment, then reached out to seize another of the circling things out of the flutter and confusion around the flowers. This one she stroked with long, rhythmic motions until its scaled and writhing body quieted in hypnotized inertia and the great wings folded into stillness. She wrapped a scarf around them and then went forward to beat off the rest of the swarm and cover the flowers with her cloak.

In a few minutes, when the sick-sweet fragrance had dissipated upon the air, the noxious flying coven of poison things began to disband, great, dark shapes sailing and swooping out in widening circles until the blueness of the twilight swallowed them. Quanna smoothed her disheveled hair and began to dismantle her fishing rod.

She knew that when light began to broaden again over the mountains the branded flying snake she had released would return to its home in the cliff above the hidden fortress where she had been born. It would not be long before Vastari had the message she had bound beneath its blue-scaled wing.

And then—if Vastari trusted her enough—a certain species of hell would be unleashed upon the citadel which Jamie Douglas still held for Imperial Earth.

When the alarm sirens exploded into sudden, brazen wailing over Darva one twilight two days later, Quanna knew that Vastari still trusted her. She stood by Jamie's mirror, watching him buckle on the cuirass without which no one dared walk the battlements when Venusian spearmen were below, and her dark gaze was somber.

Jamie, ducking into the breast-armor, was as excited as she could remember seeing him. A Venusian attack was always exciting; the rippling drums and the shrill, high keening of the seven-

toned pipes get into the listeners' blood and quicken the heartbeats in time with that wild, tuneless rhythm. Venusians do not shout in battle. The pipes and drums are the only sounds of attack, clear, inhuman music as if not men but something wild and rhythmic were attacking the city.

"Damned fools," declared Jamie, struggling with the straps of his cuirass. "Here, help me, Quanna. Attacking with spears and slings—must be something behind this. Recognize any of 'em, Quanna? Is Vastari there? Lord, I'd like to see him over a Knute before I go!"

Her eyes veiled. "You hate him, Jamie?"

"Hate?" He paused to look at her, smiling a little grimly. "Well, hardly that. He's a symbol, Quanna—a symbol of barbarism. If I could see him dead before I go, I'd be sure of one enemy less against Venusian civilization. Him and his babble about freedom!" Jamie snorted. "There might be safety a little longer for the people we leave behind if Vastari should die this evening. Well—" He shrugged and swung away. Quanna followed him smoothly, her satin skirts whispering along the floor as she walked.

They stepped out into the cool evening light, into a subdued, hushed murmur of activity. Except for the shrill, inhuman rhythm of the music outside, even battle, on Venus, was—hushed. And the music was dying now as the attackers went grimly into action.

Lieutenant Morgan was waiting by the Armory door, a file of armed Earthmen with him. The great, solid block of the Armory, and the lower walls of Darva, were the work of Earthmen's hands only and their secrets known only to Terrestrials. The Armory—heart and brain of Earth domination—was unlocked only in the presence of the commanding officer, and it was not unlocked with keys. There was no chance that Venusians might gain access to this vital ganglion of defense, or Quanna would not have resorted to this last dangerous expedient of inviting attack that the Armory be opened to her.

There was no hope even of tricking the guarded combination of the door out of the few officers who knew it, for strictly speaking, it was unknown even to them. The elaborate precautions that guarded that secret were eloquent of its importance. It had been implanted in the subconscious minds of a very few Terrestrials while under the influence of neo-curare.

Morgan had just finished making a hypodermic injection into the arm of one of his men as Quanna and Jamie came up. Neo-curare, dulling the conscious mind, releasing the subconscious—"Ready?" asked Jamie crisply.

Morgan glanced at his watch. "Ready, sir." He slid aside a tiny panel in the door, uncovering a dial. The hands of the drugged soldier hid it;



his dulled eyes did not change, but his fingers began to move as Morgan said: "Armory combination." This was the effective lock that guarded Earth weapons, the lock for which no key could be stolen.

Even if Vastari could have kidnaped one of the key men, neither he nor any Venusian knew the ingredients of the drug or the proper dosage to administer. Yes—an effective lock. But not wholly proof against traitors, Quanna told herself as she watched the weapons being brought out with rapid efficiency.

One of the Knute vibrators was being taken out of the Armory now. It looked like a thick, closed umbrella. The crew of four—three to operate, one to aim—handled the yard-long device with the carelessness born of long practice. Quanna had watched that practice more than once, from hiding places that only Venusians knew.

The Knute vibrator was a device attuned to the delicate vibrations of the brain, a wave-thrower

that could disrupt the molecules of the mind, causing a mental explosion that resulted in death. Quanna had learned the simple devices that operated it during her first weeks in Darva. More important, she had learned of the safety device, the vitally significant Gilson inert fuse. Eavesdropping in the violet twilight one evening she had heard Lieutenant Morgan excoriate a crew for testing the vibrator with the inert fuse in place.

"It's the difference between bullets and blanks," his angry voice had floated up to her out of the practice yard. "Once you put the Gilson in, you've got dynamite in your hands." There had been much more, and Quanna remembered it faithfully.

Without the inert fuse, the Knute vibrator was not deadly. It threw off a vibration that had the same effect as inaudible sound, causing reasonless confusion and terror in its victims. Dangerous wild beasts could be driven off by its use, or killed with the Gilson inert fuse in place.

Quanna followed the crew that carried a Knute to the wall. They wore the usual outfit of wall defenders, metal cuirasses, helmets, face masks with heavily glassed goggles swinging at their belts.

"There is dust on your lenses, men," she said, pointing to the nearest mask.

The soldiers grinned down at her, a little flattered by the notice that she usually reserved entirely for the commander. Quanna reached for a mask and polished the eyepieces with a corner of the rainbow scarf that veiled her hair.

"You may need to see clearly soon," she told them with a serene upward glance. "Let me have your mask, soldier. . . . Thank you."

Afterward she fell back and watched the men move up to the battlemented tower top and unfold the vibrator. She was not smiling; it had been easy enough, but she did not feel like smiling this evening. The masks were well rubbed now with a secretion from certain spiderlike insects of the high mountains. Like some Terrestrial creatures, the arachnid paralyzes its victims so that its larvae can feed at leisure. It is the fumes that paralyze, and they would work swiftly after the men had donned their masks and body-heat released the poison for the mucous eye membrane to absorb.

After that, paralysis, instant and effective. But paralysis of the body, not the brain. Because of that, Quanna knew that her hours in Darva were numbered.

She paused for a moment in the door of the commander's quarters to look back over Darva, which she might never see again. The walled city was in a hum of ordered activity as guns were rushed to the walls and defenders to positions in the mural towers. And always, she saw, it was Terrestrials who did the ordering, Venusians who scurried obediently into place. She could picture what Darva would look like in the first attack after the Earthmen left. Terror, confusion, inefficiency. She was not sure even in her own mind if she were glad for Vastari's sake or sorry for Jamie's that this should be so.

But there was no time now for loitering. She went in swiftly, moving on silent feet through the hurried confusion of indoors. There was a certain tapestry-hung angle of a hallway in which she paused while two servants hurried downstairs; then her fingers were flattening against the smooth surface behind the tapestry and a panel slid open without a sound. The Earthmen might suspect, but they could not know of the hidden passages which Venusian masons had built into Darva.

She went upward in darkness, even her cat-vision almost blind here. Halfway up she paused to find a long, scarf-wrapped bundle in a cubbyhole. The bundle squirmed faintly, giving off the musk scent of all night-flying things on Venus,

where no definite evolutionary cleavage has ever been made between reptile and bird.

At the head of the dark stairs she found another panel, and a little slit of light widened in the wall. Blue twilight poured through, and the vague sounds of Venusian battle. She could hear the heart-quickenings beat of the tripping drums below, the keening of the seven-toned pipes where Vastari's men were making a desperate effort to scale the walls before the Earthmen's invincible weapons could be turned upon them.

Quanna looked out on the turret where the Knute vibrator was being set up. From here it could rake the base of the walls with crossfire. The crew had not yet donned their masks, she saw. They were unfolding the umbrellalike weapon, till on a high tripod of meshed wires stood a conical torpedo of glass, mounted on a universal joint. From equidistant points at the base of the tripod wires led out to control boxes, each with a red push button.

"The Gilson," said one of the men, and was handed the inert fuse, a short, pencil-like rod. Quanna watched him slip it into place. "Power."

A red button was pushed. The mesh base of the Knute began to quiver—but only one section of it. Slowly the wavelike motion spread out, till the whole section was shimmering like a veil.

"Now!"

The next man pushed his button. The shimmer crawled on to his section. Then the third—

Quanna noticed that whenever one of the panels slowed in its rippling dance, the guardian of that section pressed his button again, replenishing the power. The three men bent over their tasks. The fourth handled the aiming of the projector.

It was not difficult. Quanna could not see its effect from her position, but she read the faces of the men, and heard the shouts of Venusians from below the tower. A spear clattered against the battlement.

"Masks," one of the men said, and slipped his into place. The others obeyed. Quanna hugged the vaguely squirming bundle under her arm and waited tensely.

She did not have a long wait. At the end of it she stepped out onto the tower top, walking delicately among the inert but conscious men, lying awkwardly in the attitudes in which they had fallen, unable to stir or speak. They watched her with wide, glassy eyes.

She waited for the vibrations of the Knute to subside. The arms folded up into place easily enough and the device was not heavy to lift. As serenely as if the shocked and horrified men were not watching, she unwrapped her scarf from the great, scaled wings and serpent body of the flying creature she had captured several twilights ago. A harness was already buckled around it; she fastened the Knute into place as quickly as she

could, for by now the silencing of this tower's defense must already have been noticed.

She tossed the freed serpent thing into the air. It hissed furiously and beat its broad, iridescent wings against the weight of the thing lashed to it. It would not fly far with that drag upon it, but there was no need of gaining distance now. Headless of arrows, she leaned over the parapet to watch what happened.

Shouts rang out from below and from the wall defenders. Both sides had seen it now. Quanna held her breath. The flying snake was stronger than she had thought. It was carrying its burden out over the heads of the attackers, sinking slowly, but forging grimly ahead. Now it was clear of the last tower—and it was fluttering, confused falling. Another Knute had been focused upon it, she realized.

It dropped. A rush of Venusians, heedless of danger from above, closed over the threshing, scaly wings, hiding them from view. The pipes suddenly shrilled high and triumphantly. Quanna let her breath out in a long sigh.

Then Jamie's voice, clear and resonant, shouted: "They've got a Knute! Open the gates—"

She flattened herself to the wall, straining to see the little troop of Earthmen charging outward in a wedge toward the precious weapon. Quanna heard footsteps hurrying up the stairway toward her, but she did not move. Would Vastari obey? With this chance of killing Jamie—would he remember the surer plan and escape with the deadly vibrator?

No—not deadly. But Vastari would not know that. He would not guess the purpose of the Gilson inert fuse, or that Quanna had removed the little tube and hidden it. But as for Jamie—fighting forward toward the Knute—

A swarm of Venusians closed in between the Terrestrial wedge and the vibrator. She could not see clearly what was happening, and the footsteps were very close behind her now. She gave one last, despairing glance over the parapet and whirled toward her panel. "The paralyzed Earthmen watched her go.

She was leaving few secrets behind her, she reflected as she hurried down the dark steps inside. When the gun crew recovered— But this had been the only way. And she must remain hidden now in some other of the secret places in the walls until she could escape after the gates were opened. It was a risky thing to trust Vastari with the weapon, but not even in peace time could she have walked out of Darva carrying a Knute; nor, of course, could she have captured the weapon except in the confusion and emergency of attack.

And this was only the beginning of the elaborate and cruel plan she had laid against Jamie. She should be thinking of that now, but she was not,

She was seeing the battlefield as she had last glimpsed it, Jamie's bare, dark head forging forward among the attackers, and the pipes shrilling triumph. Briefly she remembered Jamie's ominous dream.

The rumble of a far-away landslide made slow thunder through the streets of Darva as Jamie stood in the door of his quarters, drawing on his gloves and watching the last Terrestrials upon Venus form into marching order down the street. He did not look up at the high blue mountains or out over the familiar roofs and terraces below. He would remember Darva, he knew, with an aching sort of memory that would last as long as he did. But he was not letting himself think at all. He was glad of Ghej beside him, to keep his mind turned outward.

"Sure you won't join us?" he asked for the last time, and again received the beaky smile and the headshake with which the old Martian had answered that question before.

"No, I'll stay. The Solar System isn't too good a place to live in these days, but I think Venus will be the least turbulent in our lifetime. It's the last refuge from the barbarians, anyhow. I don't expect them on Venus yet awhile, perhaps not during my life span—but they'll come, commander. They'll come." He pressed his lips together and squinted under his triangular, horny lids as if into a future he did not like at all. After a moment he shrugged. "No, I'll stay. I'm adjusted here well enough." He touched the small gun that showed at his belt when the gray robe swung back. "They respect me here."

Jamie smiled. He knew the old Martian was unexpectedly swift and accurate with that small weapon.

"You'll get along," he acknowledged, and then hesitated over a question he had to ask and dreaded. "Do you . . . have you— About Quanna, I mean—"

Ghej nodded. "Once I've seen her. In Vastari's camp. She's very unhappy, commander. Venusians seldom show emotion, but I know. I think you haven't seen the last of Quanna."

Jamie's black brows met. "Lord, I hope I have! Though even now, I can't quite believe she'd—" He let the sentence die. "I wish I could get my hands on Vastari before I leave!"

"Other leaders would rise in his place," Ghej shrugged. "What Venus really needs is—oh some common trouble to draw them all together. Here at the end, it just occurs to me that if the Terrestrials had really oppressed Venusians, it might have been the salvation of the race." He smiled dryly. "Too late now."

A horn sounded in the street below them. It was time to go.

The calm-faced Home Guard watched them

marching away. There was a wild, curiously sad tempo to the music of the seven-toned pipes which played them out of Darva. Jamie saw the first shadow of decay even before they reached the gate. For the Home Guard, today, was not the fine line of soldiers he had reviewed last week. Nothing blatant, of course—just a tunic loosened at the throat, a helmet askew here, an unpolished buckle there, boots with dust on the toes—He looked away.

Another distant rockslide shook its low thunder through the air as they reached the gate. Jamie thought fancifully that the familiar, slow rumble was like the sound of the crumbling Solar Empire which was letting go its last world colony today. Behind them the wild, sad skirl of piping died away. Before them the road wound up through foothills toward the pass. And so the last legion rode out of Darva, not looking back.

Jamie thought they would all hear that skirling music until they died, and the long, low rumble of sliding rocks above peaceful Darva, and see the high blue mountains whenever they closed their eyes. These last Terrestrials had been a long time on Venus now.

There was decadence even in the marching of the Earthmen out of Darva, for a spaceport had once kept the city in touch with the outside worlds. It closed a year ago, when they moved the Seventeenth over nearer Darkside and the cost of the port became prohibitive. And so the last Terrestrial Patrol left Venus afoot, its officers mounted on padding horses, by a slow trade trail through the mountains over which Earth's ships had once glided on sleek wings.

Civilization had overreached itself in so many ways, thought Jamie. When the planes began to fail for lack of material from home, they had realized one serious gap, too late to bridge now. They had never needed surface transportation when the air was theirs, and now that the ships had failed—well, they tramped the roads as if their race had never mastered the drive of wheels.

Jamie was thinking inevitably of Quanna as they mounted the steep trail. He knew that one stolen Knute would not be enough to satisfy Vastari; there would be ambush somewhere along the way to the spaceport. He had come to personify in Vastari now all the qualities about Venus that irritated him most, and Quanna's shocking defecation—he could scarcely believe even now that she had done what she had done—he, somehow, blamed Vastari, too, with the unreason of the subconscious. There was much he could not understand even yet; he was not sure he hoped more to see her or not to see her again before they left Venus.

The sheer, turquoise heights of the mountains were leaning above them now. They could look down, as they marched, over cloud-veiled distances

at Darva showing and vanishing and showing again through gaps, each time farther away, smaller, more like a memory that recedes as time goes on.

Bright reptiles squirmed from their path, scaled, flying things swept more noiselessly than owls from their high nests as the Earthmen passed. The sound of falling water was all around them, and the low, shaking thunder of distant land-slides.

It was a long journey over the mountain route toward the port. Somewhere along the way, Vastari must certainly strike in a last, desperate effort to take their weapons for himself. But, in spite of the difficulty and danger of the journey, Jamie thought none of them was wholly sorry that it was long. They were, for the last few days of their lives, alone in a high, blue world of turquoise rock beneath the slow surge of the cloud-tide, and all of them knew they were spending their last days on a world they loved and would not see again.

For none of them had any illusions about the world they were returning to. The barbarians of the outer worlds were, thought Jamie ruefully, the last plague that Earthmen would have to suffer, a latter-day Black Death which neither Earth civilization nor Earthmen would survive.

Suspense tightened as they drew nearer and nearer the end of their journey, and still Vastari had not struck. Jamie had fantastic dreams in which he thought Quanna had killed her brother to save the Earthmen, but his rational mind knew better. That she had had more than one motive in stealing the Knute he was sure, but he did not expect to feel pleasure when he learned what it was.

Darva was far behind. Each day that passed drove it farther and farther into memory. They all gave themselves up to the timeless present, knowing that each succeeding moment of peace might be the last. And still Vastari delayed.

There is a valley in the peaks a few hours this side of Port City. Countless tortuous ravines run up from its floor through the steep cliffs around. Earthmen did a little mining there in the old days, but nothing remains today except the great scars upon the cliff faces and the long, dark blasts the rocketships left—marks upon Venus that will far outlast the race that made them.

It was so obvious a place for ambush that Jamie had been fairly sure Vastari would not use it. That was probably one of the devious reasons behind the fact that he did.

Jamie, riding at the head of the column, eyed the labyrinth of ravines around him with wary eyes as they entered the valley. The ravines looked curiously confusing. There was a shimmer over the whole valley that reminded him shudderingly of Mars. If he had not known himself on Venus,

he would have thought that heat waves were dancing between the honeycombed walls of the valley.

Then the shimmer began to spread, and a violet blindness closed softly across Jamie's eyes; the sound of falling water from the peaks faded into a ringing silence, and the valley was full of terror and confusion. Little mindless horrors chased one another like ripples across his consciousness.

This was it. Even knowing that, it was incredibly hard to shout across his shoulder: "Knute helmets!" and fumble at his saddle for the limp pack of his own. The horse was beginning to shiver under him, though the Knute vibrations were still too high to do more than touch its animal brain. But for Jamie there was terror in everything, even in the feel of the helmet he was shaking out of its pack. He had to grind his teeth together to get the courage to pull it down over his head—he had the dreadful certainty that it would smother him when he did.

The soft, metallic cloth went on smoothly, its woven coils hugging his skull. There was a moment more of blindness and the unpleasant ringing silence that might be hiding all sorts of terrible sounds. Then something like a warmth in the very brain began to ooze inward from the helmet, and the world came back into focus.

His first conscious thought after that, as he tried to quiet his uneasy horse, was that the Knute had not been turned to killing power—yet. The helmets were protection against the lesser power of the vibrator, but they would not hold out long when the Gilson fuse turned the Knute into a death weapon. Before that happened they would have to find and silence it.

He swung his excited horse around, shouting commands in a voice that echoed thinly in his own ears through the helmet, knowing that though it would be a matter of moments to locate the source of the vibrations, storming it up these twisting ravines in the face of what might at any moment become deadly waves would be quite another matter.

Everything still shimmered a little—the hills, the waterfalls, the face of Morgan hurrying up to give him the location of the Knute.

"That ravine, sir," he said, squinting over his lifted arm. "Between the waterfalls, see?" His voice was thin and quivering through the helmet. There was a strangely dreamlike air to the whole scene, as there always was under the fire of a Knute. Everything seemed so unreal that it was hard to bring his mind seriously to bear upon the problem of attack.

It was probably in a dream that Jamie thought he saw Quanna come down the slanting valley, picking her way with delicate steps and holding her familiar green velvet cloak up to clear her

scarlet shoes. She was carrying a white scarf like a flag.

Unexpectedly the rainbow shimmering of the Knute began to fade. The illusion of unreality trembled a moment longer over the valley and was gone, and Jamie blinked to see the illusion of Quanna still there, looking up at him diffidently under her emerald hood and holding the white scarf up like a banner.

He kicked his horse into a trot and went forward a little way to meet her, not at all sure what he would say when he did. He could feel Morgan's eyes on his back and was angrier at her just now for making him a fool before Morgan than for anything she had done before.

He reined in silently and sat looking down at her without a word. His black-browed scowl was forbidding. Quanna put all the delicate submissiveness she could summon into her voice. She was twisting the improvised white flag between her hands with a nervousness that might or might not be assumed.

"Lord, will you hear a message from Vastari?"

Her voice was very sweet. There had been a time when Jamie might have softened to hear it; lethargy was all that possessed him now. He said nothing, only nodded shortly.

"I have persuaded Vastari," she said, "that because I saved your life once and still hold an unfulfilled promise from you, and because you have had a warning already from the Knute, you will put down all your weapons if Vastari lets you go free to the spaceport."

Jamie laughed harshly. "How far do you think I trust Vastari—or you?"

"He could kill you," she reminded him in her sweet, reflective voice. "You and most of your men. The Knute is too well hidden to find soon, and too well barricaded to take in time, even if you found it. I know how weak the helmets are against the killing strength of the Knute. No, you must bargain, Jamie dear. But not with Vastari." She came forward with a lovely, swaying motion to lay both narrow pale hands upon his knee, tilting up her face.

"I can't let you go without me, Jamie dear." Her voice quivered as musically as a harp string. "This is the only way I know to make you listen. Jamie, if you take me back to Earth with you, I can save you from Vastari. No, listen!" Her fingers clasped his knee as she saw anger darken the face above her. "Listen, Jamie! If you won't listen for your own sake, remember your men. Earth needs them, Jamie—you've told me about that! Let me go back to Vastari and say you'll give your weapons up—at the spaceport! I can make him believe that. Let me ride with you. When we reach Port City—"

"What's to prevent him killing us then?" demanded Jamie, his voice harsh. "He won't let us

out of range, for all your lies."

"Oh, Jamie, believe me! Would I risk your life now, when I've saved it? I can control Vastari—I can! But I can't tell you how. Jamie, I'll ride with you . . . would I do that if there was any danger? Jamie . . . I . . . I—"

Her face and her voice both quivered suddenly. He saw her lift her hands to her eyes and a look of terror and confusion went over her features. The whole valley began to swim again in a rainbow shimmer, and sound and sight distorted faintly even with the helmet's protection. Vastari had turned the Knute on—on Quanna and the Earthmen.

Bewilderment made Jamie's mind blank for a moment. Why would even Vastari risk so safe a bargain as he thought his sister was making, sacrifice her wantonly with the Earthmen for no reason at all? For no reason—

Then he saw his own men moving to the left against the swaying backdrop of the waterfalls that flanked Vastari's ravine, heard the shouts of their officers, and knew that someone had blundered inexcusably. Morgan? Morgan who distrusted Quanna and the commander's weakness, and had taken fatal advantage of the delay to attempt storming the Knute up the ravine?

Jamie had no way of knowing, and in spite of himself he was suddenly and savagely glad that Morgan had done it—if he had. The weight was off Jamie now—he had no impossible decision to make—whether to trust Quanna, whether to risk his men, whether to surrender to her pleading as he wanted to do and dared not.

He spurred his restive horse and swung violently around to the ravine, shouting to her over his shoulder: "I'll make my own bargain with Vastari!"

Quanna reeled back in a shower of sand from the padded hoofs, screaming above the shouts of the charging soldiers: "Jamie . . . Jamie, wait! He can't hurt you, Jamie! The Gilson—I have it! Jamie, Jamie, you'll be killed!"

But if he heard any of that illogical cry he did not believe or heed it. The soft thudding of hoofbeats in sand, and Jamie's shouts mingling with the voices of his men, were all that came back to her. She stood staring as the last Terrestrial Patrol on Venus made its last sortie into the mountains in pursuit of outlaw natives.

The range of the Knute followed them. Her own terror and confusion faded as the vibrations died around her, but they did not fade entirely. She watched until the last man vanished up the ravine between the waterfalls. Then, for lack of anything else to do, she began to brush the sand from her cloak with long, unconscious motions.

If Venusians were given to tears, Quanna would have wept then. It had all gone so well up to

this vital point. The plan itself had been simple enough—to give Vastari the emaculated Knute and let him ambush the Terrestrials, thinking he could kill them with the vibrations when he chose. Vastari had not wanted to bargain with the Earthmen, but she had convinced him of that necessity, too, in the end. And she had been sure Jamie would surrender. She had seen it in his face, deep down, under the anger and distrust—because he must take his men back to Earth. He could not throw their lives away here for an ideal, and he had known he must surrender in the end, even if it meant lies and a broken bargain at the space-port.

Neither he nor Vastari, of course, had guessed that the Knute was harmless to kill. She had not trusted Vastari that far, and she had been right indeed. Anger shook her briefly out of her lethargy. Vastari had been ready to sacrifice her, then—if he must—her usefulness was ended now. He had no way of knowing that under her robe she was clutching the Gilson fuse which made his weapon only a dangerous toy.

She smiled a thin, malicious smile even in the midst of her anxiety over Jamie. Vastari must be an astonished man just now. His deadly weapon powerless, enemies charging up the ravine, his men scattering before the gunfire of the Terrestrials—Vastari would be retreating already. With the Knute or without it. The Venusians would not stand long against Earthmen suddenly and uncannily impervious to the supposedly deadly vibrations of the Knute.

But it might be long enough to ruin all that Quanna had planned for. It might be long enough for an arrow or a spear to find a chink of Jamie's cuirass. Vastari's men were such excellent spear-men—

And she could do nothing now but wait.

Faintly, far up among the twisting ravines, the noises of battle reached a climax and wore themselves out. Quanna sat down on a flat stone close beside one of the waterfalls, hearing the thin threndody of its music above the diminishing sounds from overhead.

She did not hear the nearer padding of a horse's hoofs coming up the valley until it was nearly upon her, and a harsh, hissing voice said:

"Quanna!" There was a subtle excitement in the voice that was not wholly explicable.

She looked up, startled almost—but not quite—out of her self-possession. Then she cried: "Ghej! What . . . why—"

He smiled. "So Vastari did attack here," he nodded, glancing about the trampled valley floor where the Terrestrials had thrown off their packs for fighting in the mountains. "I was almost sure he would. The old cave's so near, for one thing. What happened?"

She told him, keeping her voice level. He sat listening, his hands folded on the saddlebow and his opaque, old eyes piercing under the horny lids. When she had finished he nodded gravely.

"Yes—I knew it would be something like that the day you stole the Knute. There had to be something other than simple theft in what you did. So it was all a bluff, eh? Well—" He slanted an upward glance toward the labyrinth of ravines above them, and then swung off his horse a little stiffly. "I'll wait with you until—something happens."

"But why did you come?" Quanna returned belatedly to her first questions.

Ghej shook his crested head.

"Something's happened—I can't tell you yet."

She looked at him curiously from under her lashes, and saw now on the leathery, old face the same repressed excitement she had heard in his voice. Excitement, and something like dread. But she knew there was no use in questioning him.

She did not move again until she heard voices and sliding footsteps up in the ravine. Then she got up and stood quite still in her green cloak against the thin, green veil of the waterfall, waiting.

By twos and threes, carrying their wounded, the Terrestrials came straggling back to the valley. Jamie was not among them.

He was almost the last to return. He came very wearily, alone, one arm hanging in the improvised sling of his unbuttoned tunic and the blood still dripping from what was probably an arrow wound.

Quanna took one involuntary step toward him and then stopped. Jamie looked at her phlegmatically, saying nothing. She saw in his face that he had ceased to believe or trust anything she might do, and he was clinging to the protection his lethargy offered him.

Then he saw Ghej, and his face came alive again.

"Ghej? What's happened? Did you change your mind? I—"

"Tell me first how the battle went," Ghej suggested. "And let Quanna dress your arm. Were the arrows poisoned, Quanna?"

"Some were," said Quanna. "May I help you, Jamie? Please."

He shrugged and sat down on the flat stone. "All right. Dressings in any of the packs. There's one lying over there."

She went humbly to get it. When she returned Jamie was talking in a tired monotone to the Martian. He submitted to her swabbing and bandaging without notice except for a caught breath now and then.

"They got away, of course," he was saying. "With the Knute. Had it barricaded up the ravine, but not well enough. Depending on the vibrations, I suppose, but the damned fools didn't know about

the inert fuse and couldn't step it up beyond the first strength."

"I know," Ghej nodded. "Quanna has just told me—she had the Gilson fuse herself, commander."

Quanna looked up over the bandage she was fastening and met Jamie's startled eyes, an uncertain little smile on her lips.

"I tried to tell you," she reminded him gently. "You see, I really didn't mean to have you killed."

His black scowl at her was mostly bewilderment now. "But you said . . . I thought . . . I'm sorry, Quanna. But I still don't understand why—"

"Don't try now." She laid a cool hand on his cheek. "No fever yet? Then I think there was no poison. You'll be able to ride on to Port City, Jamie dear. What about me?"

He frowned a little and took the hand in his. "Not yet, Quanna. Before I go I've got one score to settle. I'm going to find Vastari and get back that Knute if it's the last thing I ever do."

Surprisingly, part of the unconscious tension that showed on Ghej's face suddenly relaxed. "Of course!" he exclaimed. "Find Vastari! Commander, I think I can lead you to him."

Quanna and Jamie stared at the old Martian incredulously. He had been in the confidence of both enemy camps for so long, and each side had come to trust so thoroughly in his impartial neutrality— After a moment Jamie said:

"Did I understand you, Ghej?"

"I want to lead you to Vastari," reiterated the Martian impatiently. "I think I know where he's gone. Venusians always scatter after a rout and meet again later at the leader's hiding place. Vastari will have gone to an old cave near here where he used to play as a boy. He's used it before for a rallying point. But he should be alone there now for an hour or more. I know the place well—it's quite near here. I'll—"

"But, Ghej," interrupted Jamie, "I'm going to kill him. Don't you understand? I know Vastari's your friend."

"I'll lead you to him," Ghej persisted stubbornly.

"Forgive me," hesitated Jamie, "but I've had too much treachery lately—or thought I had." He flashed a glance at Quanna. "You've never interfered with either side in this business, Ghej. I don't—"

"There'll be no treachery," Ghej promised him. "I swear that, commander. I'll lead you, alone, to Vastari. I promise he'll be alone, too. I promise that no Venusians will interfere on his behalf. I promise all that by the symbol of old Mars"—and he sketched the ancient crook-sign in the air.

Jamie pinched his lip and stared at the old man under black brows. There was something elaborately wrong here. He had been aware of the subtle excitement in Ghej's manner ever since they had met, and he knew the Martian was concealing

something important. If Ghej was suddenly forsaking Vastari, there was every reason to expect that he might betray Jamie, too—

And yet to meet Vastari face to face before he left Venus was worth a risk. And he had never known a Martian to lie by the sacred crook-symbol of the old world. Sudden recklessness made him shrug and say:

"I'll risk it, Ghej. Only I'll warn my men first. They'll be after me if I'm not back soon. You must tell me where the cave is, Ghej, so they can follow if I don't come back."

Ghej nodded. "I can trust you in that."

Quanna's eyes had been following the conversation from face to face. All this talk of promises and trust seemed foolhardy, particularly with the stakes involved. She was utterly bewildered by Ghej's sudden about-face after a life of neutrality, but she could see clearly enough that there was some strong motive behind it.

All this was unimportant. The heartbreaking thing was that she had failed. She had played her last trick upon Jamie and lost the game. There was no longer any lever she could use to force her way upon the ship that would take him back to Earth, unless—unless—

And then a sudden, blazing idea burst upon her, and she saw how simply and easily she might have avoided all the strategies of the past and gained her one desire by a means so simple it had never occurred to her. For once Vastari knew she had deliberately betrayed him to Jamie, her life would not be safe upon Venus and Jamie would be bound in duty to take her away with him. The simplicity of it was beautiful. Only—there must be witnesses to her treachery, so that the story would spread among Vastari's men. Or else Vastari himself must not die—

"Let me go with you," she asked the two men softly, her mind already spinning with devious plans. They gave her a look of doubtful scrutiny. "I won't interfere," she promised. "I've no love for Vastari, after what he tried to do to me in the valley. Please let me go." Her voice took on the note of irresistible pleading sweetness that Jamie remembered well, and he grinned suddenly. But before he could speak:

"Very well," said Ghej, after a moment of hesitation. "It might be well to have you there." She knew by that he was fitting her into whatever scheme was in his own mind. She lowered her lids demurely and thanked them both.

Vastari's hiding place was a narrow cavern high up in the scarred valley wall, its mouth veiled by green vines thickly abloom with purple trumpet flowers. Ghej left his two companions behind an outcropping and went in alone. The two waited in silence for his return, each too deeply immersed in speculation to speak yet about what still had

to be said between them.

Jamie was too much exulted by the prospect of meeting Vastari at last to think as much as he should of Ghej's inexplicable conduct, or of his own weariness or the pain of his wounded arm. He had never performed an execution before, but he felt no scruple now about shooting down an unsuspecting man in cold blood. It would not be a man he killed in the cavern—it would be Venusan anarchy itself. It would mean a little longer peace for the people of Darva and Port City and the other Terrestrial settlements of these mountains. Since he could not leave the cities those weapons which Earth must have, he could at least remove the organized menace which made the weapons necessary.

He was having a daydream. He was thinking that perhaps with Vastari dead, no new leader would rise soon— Perhaps the Terrestrialized cities inside their fortifications would be proof against scattered raids; perhaps in the face of necessity those skilled workmen who had labored under Terrestrial orders might labor of their own volition to reproduce the weapons Earth used to furnish them. Perhaps—

"Commander!" It was Ghej's whisper from beyond their shelter. "He's alone. He has the Knute with him. Follow me, commander."

Belated caution made Jamie hesitate for one last moment. There was still that look of intense, suppressed excitement about the old Martian, and the undernote of sadness in his voice that Jamie had never heard before. He had a sudden memory of that dream of his, and the curious notion which had followed it that Ghej was gray-cloaked Death reaching out its hand for him.

"Hurry!" Ghej was at the cave mouth, beckoning. Jamie shrugged off all his wisdom and shouldered after him through the fragrant, purple-flowered curtain into the cool dimness beyond. Ghej was just ahead of him, Quanna just behind.

The cavern was heavy with the fragrance of trumpet flowers and tremulous with green light filtering through the leaves. A man in a scarlet cloak sat dejectedly upon a ledge opposite them, cradling the folded umbrella of the Knute across his knees.

Vastari look up, startled, as the three figures blocked light from the cave mouth. He could not quite make out who the other two were against the brightness, and he blinked for a moment, trusting Ghej from long experience and not greatly alarmed.

Jamie slid sidewise to put himself out of silhouette against the light, and his gun hand rose so that green light glittered on the barrel.

"In the name of the Imperial Planet," he said clearly, his voice hollow and echoing between the walls. "I condemn you to death, Vastari."

Ghej, flattened to the wall halfway between



them, laughed suddenly and said: "No!" in the hissing Martian syllable of negation. His hand came out from under his cloak with sorcerous speed, and the gun in it was not for Vastari, but for Jamie.

The commander stared down incredulously.

"Drop your gun, commander!" said Ghej, jerking his own weapon ominously.

Jamie let his fingers loosen. He was too bewildered for a moment even to speak as his gun thudded to the sand. He had been half expecting something like this, but it didn't make sense. Vastari's quick Venusian brain, trained in trickery, leaped to swifter understanding.

"Oh, no you don't!" he cried, and was in midair before the words were finished. His red cloak and fair hair streamed as he sprang straight at Ghej. A bright grin of triumph lighted his face as his ringed hand clawed at the Martian's gun.

Ghej stepped sidewise half a pace and his other hand flashed out from beneath his cloak, moving almost too quickly for the eye to see that a small Venusian blackjack swung in his fist. It struck Vastari an accurately glancing blow.

The scarlet figure plunged past Ghej and sprawled upon the sandy floor. Across it Ghej's gun rose to fix Jamie with a black-muzzled stare.

With one lifted hand Jamie sketched the old crook-symbol of Mars in the air. He said bitterly: "Remember? But I might have known—"

"I meant it," Ghej declared, his voice strained and shaking a little. "Wait."

Vastari was sitting up, spitting out sand and vivid Venusian curses.

"Get up," ordered Ghej. "Quanna, help him. Go back to the ledge, you two. Commander, Vastari—I have something to say to you both."

Vastari spat a series of highly colored oaths at him.

"I've gone to great trouble to save your life, my boy," Ghej reminded him mildly. "I shall expect something more from you than curses."

Jamie's brows rose. He was beginning to understand at least a little. Vastari's attack upon his rescuer was clear now—no Venusian willingly allows himself to be so obligated if he can avoid it, particularly by a trick as flagrant as Ghej's had been.

"You owe me a promise now, Vastari," Ghej went on. "Part of it is this—listen in peace to what I have to tell you. Commander, this concerns you, too. I followed you from Darva the day after you left. I rode very fast. Certain news had arrived which you must know before you leave Venus. Vastari, you must hear, too." He hesitated a moment. Then he drew a deep breath and said quietly: "The barbarians have come."

There was a long moment of silence in the cave. This time it was Jamie whose mind moved quicker.

Vastari said: "Barbarians? But what—" Jamie's monosyllable interrupted. "Where?"

"At Yvaca. You know it, the walled valley? They landed secretly a week ago and took the city. Word had just come over the mountains when I left."

"Who are they?"

"The worst of the lot, commander. Mixed breeds from half a dozen worlds. The vanguard of no one knows how many other shiploads."

"The first plague spot," said Jamie. There was silence a moment more. Then Vastari's voice, slurred a little as if he were still bewildered from the blow:

"But what is it, Ghej? I—"

"I've tricked you both," Ghej told them, still holding his gun to meet any sudden impulse on the part of either man. "You've been enemies for a long while, but you have a common enemy now and you must listen to me."

"Vastari, the barbarians have come. Venus is being attacked by outworld raiders for the first time in three hundred years."

"We'll drive them out," said Vastari simply.

"These same barbarians are attacking Earth," Ghej reminded him. "If the Imperial Planet can't keep them off, what can Venus do?"

"Fight," said Vastari, his eyes on Ghej's gun.

"Not alone. These aren't Terrestrials bent on conquest, my boy. They're bloodthirsty degenerates of a hundred races with nothing but destruction and loot in their minds. And they have weapons that even Earth can't improve on, because it was Earth who gave them away, long ago. No, there's no hope for Venus at all now, unless—" He looked appealingly at Jamie. "Commander—"

Jamie shrugged. "They need me at home, Ghej."

"They need you here. I saw all this happen to Mars, commander. I know the signs. We've never spoken of this before, although the thought has been between us whenever we met. This is the twilight for you and me and Imperial Earth. Do you honestly think civilization can survive what's happening on Earth now? There's no germ of it in the decadent barbarians who are conquering there. Their future is far in the past. Earth gave them a brief new grip on the tools of conquest, and they're using them to destroy Earth, but when it's done they'll go on decaying. They don't understand anything but destruction."

"My world died of an ill like this, commander. Your world is dying of it. But perhaps we can save Venus. If we can't, then this is the twilight of civilized man and he will not rise again."

"Venus?" echoed Jamie scornfully. "It's twilight for Venus, too. What does Venus know about civilization?"

Vastari stared uncomprehendingly from one to the other, waiting his chance to spring at Ghej's gun. Ghej said heatedly:

"Do you remember what I said when we parted at Darva, commander? This is the one peril that might be strong enough to draw all Venusians together against a common enemy—teach them the value of unity and civilization. It's as if the gods were giving us one last chance. But the barbarians won't wait, commander. Venus isn't ready. If you could only stay, just for a little while—just long enough to teach them how to fight—"

"Teach us how to fight!" roared Vastari, springing to his feet. "Why, you dried shell of an outworlder, we were born fighting! This is some trick of the Earthmen to lure my men into the open. Why should we join with them just as we're winning our freedom? We'll—"

"Freedom!" Jamie derided him. "Freedom to loot and kill! What do you know about freedom?"

"It's the right to live as we choose!" declared Vastari fiercely. "The same right your people fought for. Not to have tyrants making our laws, policing our towns, collecting our taxes! We don't want you back, Earthman! We'll take our chances against invaders—if that isn't another trick of Ghej's."

"Trick?" Ghej echoed sadly. "My boy, will you have to lose your freedom before you really know the meaning of the word? You must earn freedom before you can control it. You'd destroy yourself if you had what you call freedom now. Wait until the barbarians come with their weapons. The barbarians are destruction itself—wait until that overtakes you, my boy, and then remember what you had under the Earthmen!"

"Lies!" shouted Vastari. "Why should we trust you or anyone in league with the tyrant Terrestrials? We can fight for ourselves!"

All this, to Quanna, was wasted breath. The Venusian mind wanders when talk turns to the abstracts, and Quanna had an urgent problem of her own to solve. Under her velvet robe she was clutching the Gilson fuse that would turn the Knute on the ledge beside her into a deadly weapon. She thought she had found the way now to coerce Jamie—that was all her mind had room for.

She was going to turn the killing force of the vibrator upon Vastari. It would take a moment or two before the violence of the vibrations shook his brain cells apart; in that time he would realize that she was a traitor and her life thereafter would be forfeit upon Venus, for Jamie's sake. He would have to take her back with him.

True, Vastari might die. She did not much care if he did. After all, he had been equally ruthless when she stood in his way in the valley among the Earthmen. If he died, then she would shout what she had done to the echoing peaks around the cave, where she knew Vastari's men were hiding. Some of them would hear. It would amount to a

burning of bridges that would leave Jamie no choice but to take her.

Imperceptibly she had been edging the folded Knute onto her knee as Vastari shouted his defiance and hatred of Earthmen and the Solar Empire. Ghej and Jamie were absorbed, too. In the green gloom of the cavern her green robe made her a shadow on the wall. If Ghej saw her slip past, he did not heed her. He was too deep in his hopeless argument with Vastari. And Jamie's back was turned.

The Knute was heavy. She slid along the wall and passed the curtain of flowering vines, breathing a little swiftly now. She was putting all hope in this last, desperate cast.

The Knute was not too difficult to set up. She had watched the Darva men do it many times. Here, beyond the cave mouth, across a stretch of sand, was a parapet behind which she could shelter long enough to do what she must without interruption. She had the glass Gilson fuse ready to slip into place. And now—now—

A long shudder swept the purple flower trumpets before the cave. Then the rainbow shimmer of the Knute settled down and all that stretch of wall and vine and cave became unreal, a figment of dream dancing unsteadily before the eyes. She knew that confused terror was invading the minds of the three men inside. She called clearly, yet softly:

"Ghej, send out Vastari. I am going to kill him."

There was stunned silence for a moment from inside the cave. Then Ghej's voice, quavering with the mind-shaking effect of the vibration:

"Quanna . . . Quanna, have you gone mad?"

"I mean it!" she called fiercely. "Send him out or I'll kill you all. I've got the Gilson fuse, you know!" And she smiled secretly. Jamie would not die, even if the full force of the Knute were turned into the cave. For Jamie still wore his helmet, and it would resist the killing vibrations for the few moments it took the others to die. She would be sorry to kill Ghej, but—

There was silence in the unreal cavern, shimmering behind its shimmering vines. Too long a silence. They were planning something.

"Send him out!" she called. "Send him now! I'm putting in the Gilson fuse, Ghej! Commander! Do you want to die with him?"

Still silence.

Quanna found the socket for the little glass pencil of the fuse. She fumbled a bit, putting it in. It stuck the first time. Then there was a small click and she felt a subtle change in the vibration of the Knute. Deeper, heavier. The purple trumpets of the vine began to wilt, folding softly upon their stems. The leaves crumpled. Death was pouring into the cave.

"The fuse is in," called Quanna. "Are you ready to die, Vastari?"

There was a heavy step upon the cave floor. The curtain of withering vines swept aside and a man stood in the doorway looking up at her. Jamie. His black head bare of the shielding helmet. He stood in silence, feet planted wide, frowning at her somberly under heavy brows. He was like a figure in a dream, shimmering in the full bath of the killing rays.

"Jamie, Jamie!" Quanna sobbed, and hurled the Knute backward off the parapet. Its rays swept up across the cliff in a shimmering rainbow and the machine clattered down the slope in an avalanche of pebbles, its death ray fanning the clouds.

Quanna could not remember afterward stumbling down the rocks toward the cave. Her first conscious awareness was of Jamie fending her unsteadily off his wounded arm as he leaned against the cave wall with closed eyes, waiting for his brain to stop shaking with the force of the Knute.

In the cave, Ghej and Vastari sat with heads in hands, blind and sick, as the vibrations faded slowly inside their skulls. Quanna was abstractly glad that they still lived. Now her treachery was established without the need for outside evidence. But it had been a near thing—too near, for Jamie. She shivered a little, guiding him to a seat on the ledge.

After a while Vastari lifted his head unsteadily and gave Quanna a poisonous glare. She met it opaquely. His eyes shifted to Jamie and he said in a bitter voice:

"Damn you, Earthman—I owe you my life! Now what did you want badly enough to take that risk for me?"

"Nothing," Jamie said wearily, not lifting his head. "Don't bother me."

There was something so electric in the breathless silence that followed that in a moment Jamie looked up to see what was causing it. He met Vastari's look of blank amazement.

"Nothing?" echoed Vastari in an incredulous voice. "Then why—"

"Oh, sure—I came here to kill you." Jamie spoke in a tired and indifferent voice. "But things are different now. Venus is going to need her leaders."

"But—you risked your life! No one ever does that without a reason!"

Jamie looked at him in silence. He was not sure himself just why he had done it. And there was no hope of making this Venusian understand how he felt about the world to which he had given twenty years and all his hopes and interests, the world upon which mankind might have found its ultimate future—

"You could command me to join forces with you, if you wanted that." Vastari was still groping.

"You'd be no good to me at the point of a gun," Jamie shrugged. "Fighting the barbarians will be a full-time job. I wouldn't want an ally I won like that."

Vastari sat very still, considering Jamie with fathomless eyes. Perhaps Ghej's warnings had frightened him more than his pride had let him admit. Perhaps he had been waiting for a chance to surrender gracefully. Perhaps this first encounter with genuine selflessness honestly impressed him. There was no guessing what went on behind that expressionless face. But at last Vastari said slowly:

"My life belongs to you until I redeem it, Earthman. I am pledged to Ghej, too. Will it satisfy you both if I offer my men and myself as your sworn allies until the invaders are driven away?"

Ghej's hooded head came up for the first time since the vibrations had filled the cave. He stared long and unblinkingly at the young Venusian. Jamie was staring, too. Presently Jamie's eyes shifted to Ghej, and the two exchanged a long, questioning look in which hope was slowly dawning. After a moment Ghej said in a shaken voice: "Venus is the morning star from Earth this time of year."

Jamie smiled. It was his own figure of speech, coming spontaneously into the Martian's mind. But he only said practically:

"It would mean much hard work, Vastari. Much sacrifice."

Vastari said with dignity: "Tell me what you need."

"More than you can give, perhaps. You can't fight the barbarians with spears. Even if you drove this group out by a miracle, there'll be more. You'll need modern weapons. There are men in the Terrestrialized cities who know how to make them, but they need supplies. That'll mean law and order, Vastari. You can't get raw materials or transport them in an anarchy where every brawling tribe has the 'freedom' to do as it likes. You'll have to forget all quarrels, forget personal jealousies, forget greed and loot and fighting. It'll mean back-breaking labor, night and day. You've got to work the mines and the machines again, hard and fast. We'll help all we can. We'll see that your trained workmen are taught what little else they may need to know, before we leave. But we must leave soon, Vastari."

Vastari was watching the Earthman's face with narrowed eyes, searching for some sign of the trickery he could not yet believe wholly absent. His quicksilver mind was turning the points over as Jamie brought them up, but nowhere, apparently, could he find anything that might be two-

edged. Finally he nodded, still with that puzzled look.

"Very well, it shall be done."

Yes, thought Jamie, with Ghej's help it might yet be done, after all. The Venusians were so childlike in so many ways, irresponsible, unable to see beyond the needs of the next moment. But Vastari, with his dream of freedom, distorted though it was, proved them more capable of pursuing an ideal than Jamie would ever have believed. And if the barbarians frightened them enough, perhaps they might work together to destroy them. And the work together, the common danger—would it be enough to build a civilization on? Jamie knew he would never hear the answer to that question.

The walled valley of Yvaca was doubly walled with flame. From the last Terrestrial spaceship left on Venus, slanting down toward it on broad, steel wings, it looked like the valley of hell. Only the high-walled Terrestrial city of Yvaca remained now; all around it the native village that filled the valley had been fired by the invaders to keep the Venusians at bay. But there was one ship left on Venus, and Yvaca was still vulnerable from the air.

In the deep night twilight flame lapped high about the city walls and lighted the low clouds over Yvaca with a sullen, sulphurous glow. Looking down from that height as the ship slid down a long aerial incline above the peaks, Jamie could not see the Venusian mountaineers ringing Yvaca. But he knew they were there. He spoke into a microphone and felt the floor slant more sharply as Yvaca seemed to rise at a tilted angle in the port before him.

In the heart of the city, ringed by blackened ruins, lay the invaders' spaceship. They had brought it down in one careless sliding crash that demolished three city blocks. A pale stab of light shot upward from the city as the barbarians sighted the swooping ship; Jamie could see small, distorted figures running for their ruin-cradled vessel, and his teeth showed in a hard grin as lightning flamed downward from the ship. There was something horrible about the barbarians even from this height; their warped, degenerate shapes were vicious parodies of men.

Blue fire fanned downward again from the Earth ship and touched the other vessel with a gout of flame. Half of it flew into glittering flinders that made the air sparkle over Yvaca. And now, thought Jamie, there was one ship left on Venus. The first of them had come from Earth for conquest. This last, he told himself, would set Venusians free of more than Earthly domination before it left.

The pale, stabbing ray of the barbarians' weapon shot skyward again, and the Terrestrial ship slid

deftly sidewise as the ray shaved it, raking the city below with fingers of blue light that were tipped with flame wherever they touched Yvaca.

From this height there was silence in the vessel. Jamie knew that below him, in the red inferno of the valley, cliff echoed to bellowing cliff with the roar of gunfire and the crash of sliding walls and the deep-throated soughing of flame. But he would never hear the sounds of Venus any more. Already the city below was afire. Those who escaped would find Venusians waiting in a grim circle around the valley. The first plague spot of the malady that was killing Earth was being wiped out here in flame.

There would be other spots, perhaps very soon. It might be well for Venus if they came soon, to keep the knowledge of peril fresh in careless minds. For Venus would have to meet the next attacks unaided. Remembering the feverish activity now in progress among the mountain cities, Jamie thought Venus might meet them well. He could not be sure about that, of course. He would have to leave Venus, never knowing.

He spoke again into the microphone and the ship banked for the last time over flaming Yvaca under the glowing clouds. No more rays leaped skyward from the city. The barbarians were in full flight. His work was done.

Cool hands upon his cheeks roused Jamie from his contemplation of the inferno below as the ship swung away. He looked up and smiled wearily into Quanna's face.

"Your last look at Venus, my dear," he told her, nodding down. She gave him a puzzled, little frown under delicate brows.

"It's not too late yet, Jamie. Oh, why wouldn't you stay? It would have been so easy to let the rest go on. You and I on Venus might have ruled the world!"

He shook his head helplessly. "I'm not a free man, Quanna. Less now than ever. I've a duty to Venus as well as to Earth—I've got to help hold the barbarians off until Venus is ready for them. Earth needs every man and every gun, but not to save herself. Earth doesn't know it, and I don't suppose she ever will, but her duty now is to keep the barbarians busy for Venus' sake—" He looked up at the girl's incomprehending face and smiled. "Never mind. Go get your harp, Quanna, and sing

to me, will you? We'll sit here and watch the last of Venus— Look, we're coming into daylight already."

Far behind them the sullen glow of burning Yvaca faded as they neared the edge of the cloud-tide. Diluted sunlight was pouring down upon the tremendous turquoise mountains and the leaning cliffs astream with waterfalls, all the high, blue country they would never see again. Quanna strummed her Martian harp softly.

"I'll probably be court-martialed," Jamie mused, his eyes on the mountains falling away below. "Or —maybe not. Maybe they'll need fighting men too badly for that. I'm doing you no service, Quanna, or myself, either. For your sake I wish you could have stayed."

"Hush," said Quanna, and struck the harp string. "I'll sing you 'Otterburn' again. Forget about all that, my dear. Listen." And her thin, sweet voice took up the ballad.

*"The Otterburn's a bonny burn,
It's pleasant there to be,
But there is naught on Otterburn
To feed my men and me—"*

Jamie laughed suddenly, but he shook his head when she lifted questioning eyes. He had remembered his dream again, and unexpectedly it made fantastic sense that perhaps only a Celt might have read into the dream and the song that had inspired it. He hummed the stanza again:

*"Oh, I have dreamed a dreamy dream
Beyond the Isle of Skye,
For I saw a dead man win a fight
And I think that man was I."*

The clouds below were thickening now between him and the great blue mountains of Venus that slanted away below. The Isle of Skye, the morning star. The hope of civilized man. He was leaving the future behind him, if mankind had any future at all. James Douglas was a dead man indeed, sailing out into the nighttime of space toward a dying world where nothing but death waited for him. But he left the Isle of Skye behind, and on it a battle won against the powers of evil. If ever a dead man won a fight, thought Jamie, I think that man was I.

The ship drove on into darkness.

THE END.



IN TIMES TO COME

This department is being prepared on December 8th; it takes time to perform the complex mechanical operations of making a magazine—the physical object per se, that is—and to ship it. The immediate interest of things yet to come is, on this date, a bit more widespread in scope than the issue of *Astounding* that will be made up about a month hence. The position of America has been violently changed in twenty-four hours. The make-up of our lesser community of science-fiction is of interest, if not importance; it is naturally affected by the change in the larger community of which it is a part. The immediately predictable effects are about as follows: L. Ron Hubbard is Lieutenant L. Ron Hubbard, U. S. N. We have a few of his stories on hand; whether he will, now, have time for more I cannot know.

Robert Heinlein is Lieutenant Robert Heinlein, U. S. N., as has been mentioned before in this magazine. His station is not yet determined, and I do not know whether he will be able to do any further writing; I greatly doubt that he will. He had been taking a vacation from writing since completing "Methuselah's Children." There are no Heinlein manuscripts on hand.

Anson MacDonald is in Navy service equally; it is practically certain that we will have to wait until the end of the war before he will be able to write for us again. For small blessings, give praises; MacDonald had completed and sent into

the magazine a new long novel which reached me four days ago—our check in payment reached him about eighteen hours before he reported for active duty. The novel is scheduled for the April and May issues, a 70,000-word two-part serial. It represents material fully up to MacDonald's high standard in writing, and involves a theme which has never been more than hinted at in any field of writing before. A civilization truly and soundly based on complete control of genetics—not a story about genetic control, but about a civilization based on that fundamental.

A. E. van Vogt is a Canadian; probably his status will not be changed; if anything, his work will increase in volume. Its quality is well attested by several new stories on hand now. Next month's *Astounding* carries his complete novel, "Recruiting Station," a yarn with a lovely idea as its backbone. When there's war, man power as well as technical power is needed. In a war of worlds, that's more true even than in a world war. There's a war in the future, says van Vogt, and they're setting up recruiting stations—with transportation to the battle lines guaranteed. But the recruiting stations are set up in ancient Greece, in the old, bold Roman Empire, in the days of every great war that has been—or will be for the next dozen centuries!

There's a story in that idea—and van Vogt tells it!

The Editor.

ANALYTICAL LABORATORY

"Second Stage Lensmen" was a nearly unanimous choice for first place in the December issue. There was some little difference of opinion on second place—and the real competition came on the short stories. Generally, novelettes—as I said in announcing the large size—can be better science-fiction, because they give more scope for development of the background. This issue shows something of that effect; many letters said: "The stories were all good, and it's hard to make a first-second-third choice, but—"

and listed them about as shown here. The result, you'll notice, is that between the three short stories, the total spread of point score was only 0.4—which is as close to a tie as you could get.

PLACE	STORY	AUTHOR	POINTS
1.	Second Stage Lensmen	E. E. Smith	1.52
2.	Defense Line	Vic Phillips	2.5
3.	Bullard Reflects	Malcolm Jameson	3.4
4.	Homo Saps	Webster Craig	3.7
5.	Operation Successful	Robert Arthur	3.8

The Editor.



THE SORCERER OF RHIANNON

By Leigh Brackett

● They had ways of surviving, on ancient Mars, that carried over to tangle and twist the lives of three people of a race alien to their age, their planet, their whole scheme of things—

Illustrated by Kolliker

He had been without water for three days. The last of his concentrated food, spared by the sand-storm that had caught him away from his ship and driven him beyond all hope of finding it, rattled uselessly in his belt pouch, because his throat refused to swallow.

Now Max Brandon stood on a dune of restless ochre dust, watching the coming of another storm.

It rolled crouching across the uneasy distances

of the desert, touched blood-red above by the little far sun of Mars. Brandon heard the first faint keening of it above the thin whine of the eternal winds that wander across the dead sea bottoms.

Brandon's sharp-cut face, handsome with its sea-blue eyes and bronzed skin, and the thin scars of battle that enhanced rather than marred, creased into a grin.

"So the grave-robber is going to be buried in-

stead this time," he whispered. The skirling wind blew ochre dust in his eyes and mouth, the gold-brown stubble of beard.

"All right," he said to the storm. "See if you can make me stay down." He waved a mocking hand at it and staggered down into the hollow.

To himself, he said ironically, "There's no one here to see your act, Brandy. No pretty ladies, no interplanetary televisors. The storm doesn't care. And you're going to die, dead, just like ordinary mortals."

His knees buckled under him, flung him headlong in the stifling dust. The simplest thing to do would be just to lie there. Drowning in these Martian sea bottoms was just like drowning in the sea. All you had to do was breathe.

He thought of all the ships that had foundered when there was water here, and how his bones would join theirs in the end. Red dust, blowing forever in the wandering wind.

His white grin flashed briefly. "I always said, Brandy, that you knew too much to take advice."

Everybody had advised him not to come. Jarthur, head of the Society for the Preservation of Martian Relics. Sylvia Eustace. And Dhu Kar of Venus.

Jarthur wanted to put him in the Phobos mines for looting, which was bad. Sylvia wanted to marry him, which was worse. And Dhu Kar, his best competitor and deadliest enemy, wanted to get to the Lost Islands first, which was worst of all.

"So I came," Brandon reflected. "Right in the middle of the stormy season. And here, apparently, I stay."

But he couldn't stay down. Something drove him up onto his feet again, something that wouldn't listen to what his reason was saying about its being no use.

He went on, part of the time on hands and knees, to nowhere, with the Martian desert-thirst burning him like living fire, and the first red-dun veils of the storm blowing past him.

He began to see things in the clouds. Ships in full sail, the ancient high-prowed Martian galleys. He could hear the thrumming of their rigging, knowing with the last sane scrap of his mind that it was his own blood drumming in his ears.

The wind screamed over him and the red dust rolled like water. It was dark, and the galleys rushed by faster and faster. They got clearer, so that he knew that he was going, and still he wouldn't lie down.

And then, through those fleeing phantom ships, he saw a wreck tossing.

Her masts were gone, her hull canted, her high-flared bow thrust up in a last challenge to the wind. Max Brandon knew, because he could see so clearly the wide-winged bird that made her figurehead, that he was almost dead.

His dust-filled eyes lost even the phantom ships. He wondered distantly why he should imagine a wreck among them. The wind hurled him on. He fell. And, driven by some blind, dogged stubbornness, struggled up again.

The wind flung him with spiteful viciousness against something. Something solid. Something hard and unmoving, in the heart of the restless Martian desert.

It hurt. He went down and would have stayed there, but for the stubborn thing that lashed him on.

There was metal under his hands, singing with the impact of the storm. He looked up, forcing himself to see. A deck slanted down to him, bare of everything but the stumps of broken masts.

He stared at the ship, not believing his sight. But his aching body told him it was there. He thumped it with his hand, and it rang thinly.

It wasn't any use, really, because he had no water. But the thing that had driven him kicked him now up over the broken rail and along the canteing deck to the broad cabin in the stern.

Feeble and distant, his heart was pounding with excitement. A ship, sunk ages ago in the Sea of Kesh, sailing through the red clouds of the storm—

It was impossible. He was delirious. But the closed door of the cabin was before him, and he tried to open it.

There was no catch.

He grew angry. He'd come this far. He wouldn't be balked. He drew himself erect, his tawny hair whipping in the storm, and roared at the door, commanding it to open.

It did. Max Brandon walked through, and it closed silently.

There was soft light in the cabin, and a faint choking pungence. A table of Martian teak inlaid with gold stood in the center of a room shaped to the curve of the galley's stern, furnished in somber richness.

A man sat in a carved chair beside the table. He was fair and slight in a plain black robe, with no ornament but a curious band of gray metal about his head, bearing the figure of a wide-winged bird.

His face was gentle, grave, rather young. Only in the strong lines about his mouth and the fathomless darkness of his eyes was there any hint—

Of what? Max Brandon, dying on his feet, knew that the man wasn't there. Simply wasn't, because he couldn't be.

He looked alive, but he was too rigid, and his eyes didn't wink. Didn't wink or move, staring at the girl who sat facing him.

She was hardly more than a child, with the supple strength of a sleeping deer in the long lines of her, and the stamp of a burning, vital pride still on her clear-cut face.

She wore a short white tunic with a jeweled girdle, and the cloth was no whiter than her skin. Her eyes looked at the man, unconquered even in death.

They were golden, those eyes, clear and rich as pure metal. Her hair grew low in a peak between them, swept back and down and hung rippling over her shoulders.

Max Brandon stared at it, swaying on his feet, feeling the blood swell and throb in his throat.

Her hair was blue.

Blue. The deep, living blue of an Earthly sea, with tints of cobalt in its ripples and the pale color of distance where it caught the light.

He followed it down across her white arms, and then he saw the shackles on her wrists. Her hands lay on the table, slim and strong, and on the thumb of the left one was a ring with a dull-blue stone.

Brandon's brain burned with more than thirst. "The Prira Cen!" he whispered. "The Blue Hairs, the oldest race of Mars. Half mythical. They were almost extinct when the Sorcerers of the Lost Islands were the governing brain of the planet, and that was forty thousand years ago!"

A wave of blackness closed over him, as much from that staggering thought as from his desperate weakness. He fought it off, clinging to life for just that one instant longer—

Something sparkled dully on the table, close by the arm of the man in black. A small, transparent bottle, filled with amber liquid.

Somehow he crossed the deck. The bottle was sealed with some curious substance. He struck the neck off against the table.

A drop of the fluid splashed on his hand. It tingled as though charged with a strong current, but Brandon was beyond caring. He drank.

It was strong, burning and cooling all at once. Some of the madness died out of Brandon's eyes. He stood for a moment looking at that beautiful, incredible, impossible girl with the sea-blue hair.

A racing bolt of flame went through him suddenly, a queer shivering agony that had a perverse pleasure in it. He felt his mind rocking in its bed like an engine with a broken shaft, and then there was darkness and a great silence.

He came to sprawled in a heap of dust. For a moment he thought he was back in the desert again. Then the madness that had happened swept back, and he got up, blinking into utter darkness. The light mechanism must have failed at last.

Dust rose and choked him. He blundered into a corner of the table, and something fell behind him with a dry, soft *whoosh*. He couldn't see the door at all. When he finally found it with his hands, there was no catch.

Blind panic shook him for a moment, until he remembered how he had got in. A little incredulously, he shouted at the door.

"Open!"

It didn't budge. And Brandon stood in the darkness like a trapped rat.

From somewhere, quite unbidden, a thought came.

"Set your hands on it and push. It will come open."

He did. His palms barely touched the metal, his muscles had hardly gathered for the effort. The door broke from its hinges and fell with a thin clash on the deck.

Pale Martian daylight flooded the cabin. Brandon saw now that the cushions and hangings had crumbled to dust. The teakwood table still stood, but its grain was splitting and softening. The man in black had vanished completely, save for the gray metal circlet that lay in a scatter of dust on the floor.

Brandon knew now what had fallen behind him. His gaze darted to the woman, and his heart contracted with a faint stab of pain.

There was only a naked skeleton, beautiful even now in its curved white perfection. The shackles, the blue stone of the thumb ring glinted dully on fleshless bones, the jeweled girdle burned across a splintered pelvis.

That little puff of air he had let in must have done it. Whatever mechanism had controlled the door—he made a wild guess at some seleno-cell sensitive to thought currents instead of light—had gone with the rest.

Remembering the faint pungent odor, he wondered if that had had anything to do with preserving the bodies.

The cabin appeared to be hermetically sealed. The metal of the ship was some unfamiliar alloy, incredibly strong to resist the ages of immersion on the sea floor, and the further ages of dryness and wind and rubbing sand.

It was worn thin as paper under his fingers, but uncorroded.

They had had knowledge, those ancient scientists of the Lost Islands, that no one had ever found again. That was why men lost their lives in the desert, hunting for them.

Brandon looked forward along the deck. The storm had nearly buried the ship again, but the wings of the bird on the high prow still gleamed defiantly.

He grinned half derisively at the thick pulse of excitement beating in him. He was lionized as a dashing explorer, publicly cursed and secretly patronized by scientific men, the darling of wealthy collectors—all because of the archaeological treasures he stole from under the noses of planetary governments.

All this gave him money and fame and adoring fans, mostly feminine. It gave him the continual heady excitement of dancing on the edge of disas-

ter. It gave him glamour and a gay flamboyant theatricalism, in all of which he reveled.

But underneath all that was the something that drew him to the old forgotten places and the lost and buried things. The poignant something that was real and sincere and that he didn't understand at all.

Only that he loved catching glimpses through the veil of time, finding the scraps of truth that lay solid under legends.

He went back into the cabin. The gray metal circlet he scooped out of the dust and set jauntily on his gold-brown hair. He paused over the skeleton of the woman, reluctant to touch it. But he wanted the girdle.

He reached for it. And then, oddly, he took the dull-blue ring instead.

He put it on his ring finger and was suddenly giddy. He gulped a food tablet and felt better. The woman's skeleton had fallen into grayish powder, broken by his slight touch.

He picked the girdle out of it and clasped it around his lean waist and turned to search the cabin.

There were chests of scrolls acid-etched on thin metal that blackened and flaked as he looked at them. The letters he did glimpse were older than any he had ever seen.

There were instruments and gadgets of utterly inexplicable design, far too many to carry. The frailer ones were ruined, anyway. He stuffed a few of the more enduring into his pockets and went out.

At the broken door he paused with a small, unpleasant shiver. To break down a door simply by touching it—

Then he grinned. "Buck up, Brandy. This metal is so thin that a baby could knock holes in it."

As though in mocking answer, the port rail crumpled, sending a flood of red sand across the deck. The bird on the prow trembled, and for an instant Brandon thought it was going to fly.

It fell into the dust, and was buried.

He got away from there, and watched the ship die her final death in the dry red sea. And then he said to himself:

"Now what? No water, precious little food, no idea of where I am. Speaking of water—"

That stuff in the bottle had certainly been potent. It had revived him like a shot of adrenalin. But now—

He was thirsty again.

He tried to ignore it, making his plans. He had thought he was near the Lost Islands when he landed. In fact, he'd landed because he thought he saw the outline of dry harbors and stone quays.

"But I didn't. And the position of the Lost

Islands is only conjecture, anyway. No two authorities agree."

He stood there, his scarred, handsome face twisted into a defiant grin that he knew was as hollow as his stomach, the wide-winged bird on the gray circlet glittering above his forehead. Then he forced himself to shrug jauntily and start off across the other sand.

Thirst grew in him with the arid touch of dust. The wind whined at him, and presently he heard a voice in it. He knew it was delirium, and refused to listen.

The spurt of strength the strange amber fluid had given him drained away. He fell in the blowing dust and cursed it in a choking whisper. And the voice said:

"Strike it with your hand."

He did, because he thought it was his own desire speaking. He struck the side of the dune before him, weakly, with his doubled fist.

There was a flash and a small thunderclap, and water ran.

He caught it in his cupped hands and drank like an animal, splashing himself, sobbing. Then he got up and stood staring at the wet place in the dust and his wet hands.

He backed off, slowly, his blue eyes widening and paling in a stricken face. He shuddered and passed a hand across his damp beard.

"Merciful heavens!" he whispered. And gripped hard at the rising terror in him.

"The power isn't yours," said a gentle thought-voice in his brain. "It's merely transmitted through your body."

Brandon closed his eyes and held his clenched fists against his temples.

"No," he said. "I'll die decently of thirst if I have to. But I won't go mad."

"You're not mad," said the voice. "Don't be frightened."

The last was faintly condescending, which made Brandon angry. He threw his head back, so that he looked rather like the bird of prey on his circlet.

"Who are you?" he demanded. "And where?"

"I am Tobul, Lord of the Seven Kingdoms. My body is dust. But the essential frequencies that activated that body are in you."

"That's witchcraft," said Brandon curtly, "and that's madness."

"Witchcraft to the ignorant," murmured the voice coolly. "Simple science to the learned. Life is essentially a matter of electrical frequencies, a consumption and emission of energy. There is nothing strange about charging metal with electrical life. Why should there be anything strange in charging any other substance with any other phase of the basic stuff of the universe?"

Brandon looked at the restless desert, tasted the dust on his tongue, listened to the wailing wind.

He pulled a hair from his tawny beard, and felt the hurt of it. He took a deep breath.

"All right," he said. "How did you get into me?"

But the voice whispered now, and not to him. "Desolation," it said. "Death and desolation. The sea, the clouds, the strength and power of life, all gone. Is this truly Mars?"

Max Brandon felt a wrenching sadness go through him, and then a swift stab of fear, very faint, like things in a half-forgotten dream.

"I must get to Rhiannon," said the voice of Tobul. "At once."

There was no emotion in it now. Brandon sensed an iron control, an almost barbarian strength.

"Rhiannon," he repeated. "I never heard—You said Tobul, *Lord of the Seven Kingdoms*?"

Brandon sat down, because his knees wouldn't hold him.

"Rhiannon," he whispered. "That's the ancient name for the Lost Islands. And 'Lord of the Seven Kingdoms' was the title of the sorcerer-scientist who ruled half Mars, from his seat in Rhiannon."

Ancient things. Things deeply buried, nearly forgotten, clouded by superstition and legend. Forty thousand years—

Brandon sat still, just clinging to his sanity. At length he repeated quietly:

"How did you get into me?"

"When the ship sank, so suddenly that nothing could be done, I transferred my essential to a bottle of liquid prepared for the purpose—a faintly radioactive suspension medium. Those were troubled times—one went prepared."

"The collective frequencies that form my consciousness remained there unharmed, until you drank the liquid. Fortunately it was not poisonous, and you gave me easy entry into a satisfactory host."

A picture of the man at whose side the bottle had been came back to Brandon—the fair, grave face and the impenetrable eyes. That man, dead forty thousand years—

Brandon ran his tongue over dry lips. "When are you going to get out of me?"

"Probably never. I should have to build another body, and the secret of that is known only . . . Brandon!"

It was as though a hand gripped his brain. The impact of that will was terrifying. Brandon felt his mind stripped naked, probed and searched and shaken, and then dropped.

"Her jeweled girdle he took," murmured Tobul, "and my circlet, and some instruments. The girdle is only metal and jewel—look at your hands!"

Brandon looked, raging, but unable to help himself.

"The blue ring, Brandon, that you took from her thumb, is it there?"

It glinted dully in the sun. Brandon looked at it and said simply: "I don't understand. What ring?"

Tobul whispered: "His eyes don't see, he has no memory. Yet I can't be sure. I was faint with the effort of breaking the door, after so many centuries of quiescence. She may have blanked his mind. But it's a chance I must take."

"Brandon, we go to Rhiannon."

Brandon got up, and there was something ominous in the set of his broad shoulders.

"Just a minute," he said evenly. "I want to find the Lost Islands, too. This possession business has its fascinating angles, I'll admit, so I'm trying to be tolerant of you. But I won't be ordered about."

"Take the instrument out of your left-hand pocket and look at it." Tobul's voice was utterly without emotion.

"Do you hear me, Tobul? I won't have the privacy of my mind invaded. I won't be ordered—"

He stopped. Again the hand of that iron will closed on his brain. The sheer calm strength of it numbed him, as though he had been an ant trying to stem an avalanche.

He fought, until sweat ran down the channels of his face and his lean body ached, fought to keep his hand from reaching into his pocket for the instrument.

But the dark iron power of Tobul's mind rolled in on him, wrapped and crushed and smothered him with a slow, patient ease.

Trudging over the other waste, following the mysterious, quivering needle in Tobul's instrument, Max Brandon still could grin.

"Brandy, Brandy," he murmured. "I always said drinking would get you into trouble!"

Two chill Martian nights passed, and two days. Brandon got used to drawing water from the dust with a blow of his fist. It pleased him, like a small boy with a firecracker.

Tobul, in a rare fit of communicativeness, said it was simply a matter of releasing mental energy which caused oxygen and hydrogen to unite from the air. The blow was only a means of directing the mental concentration.

The Lord of the Seven Kingdoms had withdrawn himself utterly. Brandon felt no discomfort, nothing different from his usual tough health. Only when he tried to disobey the pointing of the compass, he was forced back to obedience.

It galled him, but there was nothing he could do. It was terrible to think of living out his life as host for a parasitic intelligence. It outraged his pride, his individuality.

And yet, to have contact with a mind forty

thousand years old; to be taken to the Lost Islands of Rhiannon, the greatest archaeological mystery of Mars—

He asked about the compass. Tobul answered absently.

"It obeys a directional impulse from the vault." And then, even more distantly: "The vault is still there, safe, in all this."

For a fleeting instant, through his own excitement at the mention of a vault, Brandon caught the unguarded sorrow of Tobul, looking through an alien's eyes at the withered mummy of his world.

More and more, as he accustomed himself to his strange condition, Brandon's mind went back to the girl with blue hair, sitting proud in her shackles across from Tobul.

"Who was she?" he asked.

The leashed fury of Tobul's answer startled him.

"The most dangerous creature on Mars. In a short time I should have destroyed her. But, somewhere, her mind lives as mine does, and defies me— Brandon! Go on!"

But Brandon stood still, with a curious chilly crinkle to his spine.

"Sorry," he said. "But the compass is shot."

Tobul's armor dropped, then, for an instant. Brandon felt what a lost planet must feel, torn from its sun. He never forgot it.

"Kymra! Somehow, she has gone before me— Go on, Brandon!"

Brandon shrugged and went. "May as well die walking as sitting," he said. "It may not be Kymra of the Prira Cen, though. It may be just plain Dhu Kar of Venus, which is worse!"

And then, just before the swift sunset, a flier came droning low over the other sand, swinging in wide circles, searching.

Brandon danced like a madman on the top of a dune, obeying Tobul's command as well as his own urge. The flier came down.

A tall, slender figure in grease-stained flying togs leaped from the port and ran toward him in a cloud of dust.

"Brandy!" yelled a clear voice. "Brandy, you idiot!"

"Good Lord!" said Brandon. "Sylvia."

She swept into his arms, kissed him, cursed him, and shook him all at once.

"Are you all right? What happened? I've been hunting for three days."

He held her off and grinned into her eager gamin face, framed in a perpetually tousled mop of curly black hair, set with eyes as sea-blue and adventurous as his own, and smudged slightly with grease.

"Syl," he said, "for once I'm glad to see you."

"Some day," she grinned back, "you'll realize

my sterling worth and marry me. Then I shan't have to fight mom about being a glamour girl, and pop about you being a bandit hunting the Eustace cash—"

"And I won't be able to rob graves in peace—"

She was suddenly pressed against him, gripping his arms with painful fingers, making choking sounds at his shoulder.

"Oh, Brandy," she whispered. "I thought you were dead."

Tobul spoke harshly in Brandon's mind. "Hurry. Get into the flier. We'll try to find Rhiannon from the air. Hurry!"

Brandon was apprehensive about that, because of the compass suddenly going dead. If Kymra of the Blue Hair was really there ahead of them, it meant trouble for Tobul, which meant trouble for Max Brandon, and, consequently, for Sylvia.

He hesitated, and Sylvia said.

"Brandy, you'd better give up hunting for the Lost Islands. Jarthur is hopping mad, because you know what relics from there would mean to Mars, and Dhu Kar—"

"Dhu Kar?" snapped Brandon.

"He left the day after you did, as soon as he found out. And Jarthur went storming off with a bunch of policemen, to look for both of you. Of course," she added hopefully, "they may have got lost in a sandstorm."

Brandon shook his head. "It's a big desert, and they may not have been fools like me. I got too far away from my ship."

If it was Dhu Kar who had broken into the vault at Rhiannon, that meant trouble, too. The Venusian played for keeps. Brandon had skirmished with him before, and he knew.

And yet, if he could help it, he wasn't going to let that semihuman pirate from the Venusian coal swamps steal Rhiannon from him.

He stood there, thinking these things, his profile hawk-clear with the wide-winged bird glittering above it, the red sunlight caught in his fair beard and shaggy hair, looking rather like a viking.

And Sylvia Eustace, with a curiously puzzled look in her blue eyes, took the ring from Brandon's finger and put it on her own. Then she said calmly:

"Come on, Brandy. We're going to Rhiannon."

He followed her, not noticing the ring. Tobul, grim and silent inside him, seeing only through his eyes, knew nothing of it, either.

The flier was small, fast, lovingly worked over and expertly handled. Sylvia went directly to the controls.

Brandon scowled, trying to plot the most likely course, combining his own conjectures of the position of the Lost Islands with the way shown by Tobul's compass.

Sylvia sent the ship hurtling upward. When

he started to speak, she cut him short.

"I think I know the way."

He stared at her. "Nobody does. It's all guess-work."

"Well," she snapped, "can't I guess, too?"

He shrugged and sat back in the padded seat. Sylvia's tall, boyish form, the despair of her society-loving mother, hunched over the controls. The flier shivered with the thrust of power from the rockets, and the thin, cold air screamed along the hull.

Sylvia always flew fast, but there was a tense-ness about her now that was unlike her.

"We can't do much looking at this pace," he said mildly.

"I tell you, I've studied up on it and I know the way!" There was an imperious bugle note in her voice that startled him.

Then she glanced at him. Just for an instant her eyes were puzzled and frightened and altogether Sylvia's. But that was gone in a flash, and the ship rushed on, racing the rising moons.

In the third hour before dawn, with little Phobos rushing ahead of them and Diemos a ball of cold fire overhead, Brandon saw a shadow more solid than the shifting dunes.

Sylvia put the ship down. "We're there," she said. Then she laughed and shook him by the shoulders, and her blue eyes sparkled.

"Think of it, Brandy! The Lost Islands. And we'll see them together!"

"Yes," said Brandon, and the lines of his scarred brown face were deeper. He was thinking: "Funny she knew the way." There came before him suddenly the picture of a reckless, vital face set with unconquerable golden eyes, and hair like a living waterfall.

Tobul said softly: "I see what is in your mind. Kymra may have taken her, as I took you. I dare take no chances. Kill her."

"No!"

Sylvia looked at him, startled. He gripped his seat with corded hands, and argued desperately.

"It wouldn't do any good! If Kymra is in Sylvia, she'd only go back into—wherever she was before."

"Into some inanimate thing, Brandon. Perhaps in that state she could be forced— She would be helpless to move, as we both were in the ship. The cohesive frequencies of a disembodied intelligence undergo a violent change under solar bombardment, unless protected by some denser matter."

"I won't!" whispered Brandon.

He clung to the seat, fighting the inexorable command of Tobul's mind. He looked at Sylvia's eager, vital face, and his heartstrings knotted in him like the straining muscles of his body.

It was futile. Slowly he drew the small needle gun he always carried and slid the clip of poisoned

needles into place. He raised it and aimed, at the girl who neither moved nor spoke.

He fired.

The needles vanished in midair with little bright spurts of flame. And Sylvia laughed.

"Tobul," she said, and the ringing bugle note that was not Sylvia's was in her voice again. "Not that easily, Tobul! I'll fight you, just as I fought in the old days, to the last ditch!"

As though of its own volition, Brandon's voice came, gentle and strange to his ears, with a feel of barbaric iron under the velvet.

"That vault is all that is left to me of Mars, Kymra. It is mine by right of conquest and the blood my people shed."

"Barbarian!" Sylvia tossed her head like a war horse scenting battle. "What is in that vault is mine by right of having built it, and the blood my people shed defending it! The secret of the things you stole from us lies locked in my brain. The things of your own borrowed civilization you shall not have, either."

"This dusty shell is still Mars, and though my race is dead, its people are still mine. I'll not have them misruled by a dog of a nomad, with only four centuries of borrowed culture behind him!"

Brandon felt a blind stab of rage through Tobul's guard, and some of the velvet sloughed away from the iron ring in his voice.

"Borrowed or not, I have the knowledge. The need to rule is as strong in me as it is in you, woman of the Prira Cen!"

"Your people were soft with age and culture. You conquered us, yes, because you knew more. But our blood was strong. We took what we wanted and used it against you, and we were not bound by scruples about blood-letting!"

"I'm beginning to find myself again. From what I have taken from this man's mind, I see that Mars needs new rule, new strength, the knowledge that I can give it. Mars can live again. But in my way, Kymra! The way of strength and manhood."

"The way of stupid, blundering beasts," said Sylvia, her voice deep with some powerful emotion. "You slaughtered the Prira Cen, the kindest, wisest, gentlest race on Mars, because you were jealous of our knowledge. You called it 'foreign domination,' though we never killed a man of your people, and did you more good in ten years than you yourselves could have done in a century."

"Because we kept our race pure, you were jealous of us. Because we kept the secret of our one deadly weapon, you feared us, though we did it for your own protection."

"We crushed you without it," said Tobul.

"Only because we waited, not wanting to de-

stroy you, and were betrayed. You were taking me to Rhiannon in chains, Tobul, but I tell you that no torture you could devise could have forced me to tell the secret of that weapon. Nor," she added with deliberate malice, "another secret, which you would like now, but cannot have."

Tobul did not answer her. Silently in Brandon's mind he said, "Take the small tube from your right-hand pocket."

The vise-grip of Tobul's will on his made even a pretense of resistance impossible. Brandon dropped the useless needle gun and did as he was told.

"She has nothing but the power of her mind," murmured Tobul. "She can't fight the strength of the projector long. Fire, Brandon!"

With some foreign knowledge, he pressed a stud. A faint beam of light leaped out, spluttering in blazing incandescence against the barrier of force Kymra had built around Sylvia's body.

It burned and blazed, and the force wall held stubbornly, and Sylvia's blue eyes stared at him through the fire.

"You, too, Brandy?" she said, and now the voice was her own. "She made me understand, all in a flash. She can't hold out long. It's all so mad! Brandy, she's weakening. Brandy, can't you do something!"

He couldn't, though the sweat of agony needed his face. Out of some dim distance he sensed a growing heat and glare and thought it was from the clashing energies before him, until he realized it was in the wrong direction.

The stern plates of the cabin were glowing cherry-red.

Somehow he found his voice. "The fuel tanks!" he yelled. "Got to get out. Somebody's got a heat beam on us."

Miraculously, those two warring intelligences understood. The blazing battle of force broke off. The hull plates paled—

They ran. With all their strength they leaped through the port and pelted over the desert, trailing crazy shadows from the double moons.

Light gravity and long legs took them barely out of danger. Brandon threw Sylvia flat just as the tanks let go. A thundering, howling wind swept over them with a solid wall of dust, and a vast flame pillared up into the sky.

For an incredibly long moment it painted every detail of the scene in wicked crimson—the gaunt, worn shell of a volcanic cone dead and buried for unnumbered centuries and bared capriciously now by the restless sand, a few Cyclopean blocks of Terellan marble cut to shapelss lumps by the passing years, tumbled about a gaping hole.

Directly in front of the hole was a big, fast, convertible spaceship. From it had come the heat beam.

"Dhu Kar," said Brandon, coughing dust. "Why does this Dhu Kar wish to kill you?" asked Tobul.

"For the same reasons I'd like to kill him," returned Brandon grimly. "Except that he's a vandal and a swine, and I'm a very charming fellow. Wait a bit. You'll see."

He got up, and Sylvia, as usual, scrambled up before he could help her. Her face was pale and a little frightened, but her blue eyes danced.

"I've always wanted real adventure," she said, with a shaky little laugh. "I'm getting it!"

They went toward the spaceship. And up out of the black pit, looking like a misshapen demon in the light of the double moons, came a squat shape bearing a burden—a radio-controlled robot carrier.

Brandon felt the tendrils of Tobul's mind reaching out to search the mind of the man who blocked his way to the vault.

"He's looting my vault," whispered Tobul. "My vault, built and sealed against time forty thousand years ago. This outland dog!"

"And what he can't carry away he'll destroy, partly to cover his tracks, mostly to keep anyone else from profiting." Brandon's tawny head came up. "Let me handle Dhu Kar myself."

"I can't afford to risk your body, Brandon." Brandon said angrily: "Look here, Tobul—" The iron hand of Tobul's will closed on his



mind. He shrugged, and went on in silence, Sylvia's firm shoulder close to his.

Dhu Kar of Venus came out of the air lock of his ship.

He loomed hugely in the shifting light. The fish-belly white of his face and hands gleamed sharply out of the dark furs he wore against the Martian chill. He was bareheaded, according to the custom of his people, his snowy hair intricately coiled.

He held a needle gun in his hand, and his eyes were cold little chips of moonlight in his broad white face.

"Didn't know you had a woman aboard, Brandon," he said. His voice was harsh and slurring. "Yes, I recognize you, Miss Eustace. I'm glad you weren't harmed."

"He'll be happy to take you home, darling, for a small consideration. Say a million credits or so."

Brandon was advancing slowly, poised on the balls of his feet. Dhu Kar grinned.

"How right you are, Brandon. For once you're bringing me business instead of getting it away. But you can relax, Brandon. You won't have to worry about it."

He raised his gun slightly. Sylvia cried out and made a move toward Brandon. The gun hissed softly.

The needles splattered harmlessly against a wall of force, just as Brandon's had done back in the ship. And Sylvia Eustace turned and ran.

"I'm not doing this, Brandy," she yelled, her long legs flashing through the dust. "Are you all right?"

"All right!" he yelled back, and rushed after her, impelled by Tobul's furious command to get to the vault tunnel first.

Dhu Kar was staring from his gun to the running man in open-mouthed amazement. Then his jaw shut hard. The girl didn't matter—he could catch her. But Brandon—

If something was wrong with his gun, he'd try something else. He fumbled in a capacious pocket, and his powerful arm flexed.

The gas capsule burst just at Brandon's feet. Tobul, concentrating every effort on catching Kymra, was caught off guard. Before he could stop himself, Brandon had breathed enough of it to drop him dazed in the sand.

He floundered away to windward, and realized that Tobul, associated as he was with Brandon's physical medium, was momentarily affected, too.

Sylvia's flying form vanished into the pit mouth. Dhu Kar laughed and ran toward Brandon, very light and swift for such a big man.

Brandon got to his feet and stood swaying, lost in a roaring mist, his hands raised blindly, waiting.

A pair of vast white hands came out of the darkness toward his throat. He caught them. He

fought to hold them off, but his sinews were water.

The hands got closer. There was a face behind them now, broad and pale and contentedly smiling. Brandon's white teeth showed through his tawny beard. He gulped the clean desert air and scoured his lagging strength into his arms, to hold those hands away.

But the stuff he'd breathed sent a black tide swirling through his brain. The hands and the smiling face were drowned in it.

The wide-winged bird on his circlet gleamed in the cold light of Diemos; the lines of his scarred, handsome face were deep and strong. He dropped Dhu Kar's wrists.

The last desperate backlash of his strength went into his forward surge, the thrust of his hands to Dhu Kar's throat.

The Venusian laughed and flung him off. Brandon crumpled on the sand, and looked up at death. He was grinning, the reckless grin that women sighed at on the televisior screens.

Some little mocking imp in his blacked-out brain whispered: "No audience, Brandy! You can quit."

But he didn't. And death came down in two white hands.

And vanished, in a sudden, coruscating puff of light.

Tobul's voice spoke, through the stifling darkness in his mind. The velvet was all gone from it now. It was clean, barbaric steel.

"I was affected only for an instant. I could have saved you this. But Kymra was gone then, and I wanted to see how men fight today.

"That circlet you wear was the crown of my fathers, when they were nomads living on raided herds and stolen grain. Keep it, Brandon. And believe me when I say I regret having to use your body. I shall try not to do it violence."

Brandon felt a tingling fire sweep through him, and quite suddenly the effects of the gas were gone. Some vibration Tobul freed, stimulating the natural processes of his body to instantaneous reaction. He got up.

"Tobul," he said, "did you say that Kymra knew the secret of building a body for you?"

"Yes. But there is no way now of forcing her to do it. The girl fights well, for all she's a Blue Hair."

"I'll find a way," said Brandon.

Tobul's voice came deep and strong in his brain.

"I admire you, Brandon. I wish to help you all I can. But this fight is between Kymra and me. We are of opposing races, opposing creeds. The will, the actual need to rule is inherent in both of us, as the need to breathe is in you. Not the will merely for power, but for the guidance of millions of people to what we believe is a better way of life.

"We have different ways, Kymra and I. There is not room on Mars for both of them.

"We will go, Brandon. Down into the vault. Kymra is there ahead of me, but I still have some powers. One of us will not come out."

Brandon went, down into the Stygian shadow of the tunnel. Somewhere ahead was Sylvia, and Kymra of the Prira Cen, and the powerful things in the vault he could only guess at.

Behind him, outside, was sleeping Mars, resigned to the slow advance of death, living out its little days in peace.

Behind him, too, long after the tunnel roof had killed all sound from beyond, four ships came flashing down through the moonlight, drawn by the great pyre of Sylvia's flier.

Jarthur, president of the Society for the Preservation of Martian Relics, looked out at the worn stump of the volcano—a tall, weedy man with sad Martian eyes and semimilitary authority.

"These things are all we have left," he said to an assistant. "These bones and shards of our history. And even these the outlanders strip from us."

He flipped open the intership radio connection. "Cover this area thoroughly. Issue orders that everyone found here is to be arrested. If they resist, fire. Anæsthetic needles. *No one is to be allowed to escape.*"

It was cold in the tunnel, and musty with the dead smell of time. It was dark, too, but Brandon had no trouble finding his way. The square passageway, sheathed in metal of the same forgotten alloy as Tobul's ship, ran straight ahead and down.

Tobul explained it, answering Brandon's question.

"Those were troubled times. I knew that Rhianon might be destroyed at any time. So I built this vault, sheathed in metal that will not corrode and is harder than the finest steel. It's air-tight, and filled with a preservative gas—or was, before the Venusian broke in.

"In it I had placed the sum of our knowledge, science and arts and pleasures, and with them the two secrets we took from the Prira Cen but could not use—the machine of regeneration and the weapon.

"They're still here, waiting. They mean the rule of Mars."

Presently Brandon came to massive metal doors that barred his way. The controls were locked from the inside. Tobul said:

"The projector, Brandon. The same one."

He pressed the stud. The faint beam of light focused on the door. The metal glowed, wavered, and crumbled away into fine powder.

"It upsets molecular cohesion, reducing the metal to fine particles of its original elements," Tobul explained.

Brandon shuddered, thinking what would have happened to Sylvia. The beam ate and ate into the door, crumbling a hole around the massive controls.

It went through nearly a solid foot of metal, and went dead.

"Age," snarled Tobul. "And all this time, Kymra—" He broke off. "Put your hands in the hole, Brandon."

He obeyed, remembering the cabin door on the ship and wondering if he'd be destroyed by Kymra's secret weapon as soon as he entered, or whether he'd live long enough to say good-by to Sylvia.

The weakened metal went through, under the power impulse from Tobul's brain. The massive valves swung back—

Brandon stood frozen on the threshold.

The vault stretched away into gleaming distances filled with machines, with racks of metal scrolls and objects of a million shapes and sizes. All the life and learning of ancient Mars, the scientific powers of the Sorcerers of Rhianon, preserved by the foresight of one man.

But it wasn't that sight, tremendous as it was, that set the blood hammering into Brandon's throat and wrists.

Directly across from the door, as though brought in just before it was closed, was a huge glass cabinet set in an intricate web of coils. These shimmered in a halo of light, at once subdued and fierce.

Beneath the cabinet were several self-sealing metal containers. One the floor of it, inside, were trays and bowls of chemicals.

Above these, in the very center of the soft, deep glow, a shimmering thing stood, already vaguely formulated.

Witch fires danced over the chemicals, whirling upward in a spiral of incandescence. As though painted by a rapid brush, line and color took shape—

The fires died down, the glass door opened, and a girl stepped out.

A tall, long-limbed girl, naked as the moon and as white. She moved with a vital grace, and her eyes were like bits of living gold, proud, unconquerable, meeting Brandon's own.

And her hair was blue, rippling down over her shoulders like the curl of a living wave over foam-white coral.

Brandon heard a long, quivering sigh through his mind, and Tobul said:

"Kymra."

The girl nodded and turned to a curious thing raised on a metal tripod. It seemed to be mainly a crystal prism forming the core of a helix, which was of some material midway between crystal and metal—partially transparent, and made up of

countless intricate facets.

The helix broke at its lower end into a score of shining strands which fanned out into a circle.

Sylvia Eustace spoke suddenly from where she stood, at one side of Kymra and a little behind her.

"What are you going to do?"

Kymra's voice was very grave when she answered. Her golden eyes watched Brandon with somber regret.

"I am going to kill," she said quietly.

Her clear, muted voice rang softly from the metal vault, heavy with regret.

"For the first time one of the Prira Cen is going to take life willfully. I'm sorry, Max Brandon, that you must be the innocent victim—doubly sorry because of what I have read in this girl's mind.

"But you—and I—are less important than Mars."

Tobul, speaking aloud through Brandon's throat, said harshly: "So you have had to come to my way at last."

She shook her head, that glorious shining hair like the forgotten sea that had lapped this island.

"No, Tobul. Because I take no pride in it, only sorrow. If my people had seen in time that they must deal with your barbarians as they would with a horde of wild beasts, humanely but firmly—" Her white shoulders shimmered through the shadowy blue.

"But they didn't," said Tobul, and his voice held a bitter satisfaction. "You'll be all alone, Kymra, in an alien world."

"No. You're not the only one who looked ahead, Tobul! My seven wisest councilors took refuge in sensitized stones, which you brought here to this vault. They knew that I would live, as they do. It was the thought-impulses of their minds that led me here, after Dhu Kar broke your sending mechanism moving it.

"Their atomic patterns are inherent in the frequencies of their consciousness. That's the secret of building bodies, Tobul. Given the consciousness and the necessary chemicals, that machine can create an identical replica, as you see in me.

"Sylvia, my dear," she added gently, "it will be quite painless. If I had any other sure weapon to use against Tobul's strength, I would, and then rebuild Brandon's body. But this force projects the consciousness into some unknown dimension, just as solar rays will. It cannot be recalled."

Her hands dropped out of sight below the prism. Brandon could see the ripple of firm muscles along her arms as she went through some complicated operation.

"Good-by, Tobul," she said softly. "Strange that we must end like this, in a world so different from the one we knew."

The prism began to glow with some queer per-

version of light that seemed rather luminous darkness. It ran along the facets of the helix, faster and faster, stranger, darker, more dazzling.

Brandon felt every drop of blood in him stop for a second, and then race on again, with the swirl of that mad, black luminosity. A cold terror caught him, a thing that hadn't come at all when Dhu Kar's hands were at his throat.

He felt Tobul's being surge within him, fierce and rebellious and bitter. Not afraid, much. Only ragingly sad at his defeat, and the thought of his people being ruled by Kymra of the Prira Cen.

"Negative energy," said Kymra's voice, ringing through the great vaulted rooms like a muted bugle. "It taps the power of the galactic wheel itself, turning against the cohesive force of space. Energy so close to the primal warp of creation that it needs only the slightest charge to push it over into the negative—the opposite balance that everything possesses."

The grave, sad voice beat against Brandon's ears.

"There is no defense against it, Tobul. All your force screens and projectors are worse than useless. They attract now, instead of repelling. Do you wonder we kept this weapon secret?"

The little threads of blackness spiraled out into a cone, and grew.

Brandon's heart thundered in his throat. The mocking devil in his brain laughed because the reckless grin was on his lips, playing to the audience—Sylvia's stricken eyes.

He was sorry for Sylvia. She'd be alone now, in an alien world of wealth and decorum, that only he could have taken her out of.

Alone, in an alien world—

Brandon swallowed his heart. A sudden, desperate hope flared in him. Useless, but he had to try. The thing that had driven him through the desert made him try.

He started to cry out, "Kymra!" And Tobul's will clamped his tongue to silence.

"I will not beg for life," he said.

Things happened then, all at once. Sylvia made a long-legged leap forward, into the path of that blackness that ribboned and twisted out from the helix. In a second it would have touched her. But Brandon, moving instinctively, so that Tobul had no time to catch his conscious thought and block it, flung himself against her.

She went sprawling over out of harm's way. Kymra caught her breath sharply and started to move the projector to a new focus. And Brandon, looking up, cried suddenly:

"Jarthur!"

He stood there, the tall, thin Martian with the sad eyes. He had a needle gun in his hand, and six or seven black-clad policemen just behind him.

He stared, momentarily stunned, at the vault and Kymra, with the blue hair cascading over her naked shoulders.

Kymra made a sharp movement. The dark light in the prism changed. The black cone unraveled itself, back into the helix. Brandon's heart gave a wild shudder of relief. Kymra was reluctant to take innocent lives.

He scrambled up, sensing Tobul's dangerous alertness. Jarthur, forcing himself to steadiness in spite of his amazement, said:

"Max Brandon, you're under arrest."

Tobul acted with the swiftness of his barbarian ancestors. With anæsthetic needles splattering in flames from his force shield, he charged into the middle of Jarthur's group.

The shock of Brandon's immunity demoralized them. Tobul's mind put forth tendrils of iron force.

"Surround me," he said. "Walk forward."

Brandon saw the look in Jarthur's eyes, midway between nightmare and reluctant acceptance of insanity. Then he obeyed. Tobul moved forward, surrounded by a living shield.

Kymra stood irresolute behind the projector, reluctant even then to destroy more of her people. And then Sylvia moved.

She uncoiled from the floor with every ounce of her lithe strength, hurtling into Kymra. Kymra's mental force shield must have been momentarily dispersed by the shock of Jarthur's entrance and Tobul's sudden maneuver.

Sylvia crashed into her, knocking her away from the projector. She yelled, "Brandy! Do something!" But it was Tobul who flung away his unwilling protectors and gained the control board behind the projector.

Kymra rose, dignified and beautiful even then, standing beside the regenerator.

"It's no use, Tobul," she said. "You can't use it."

Brandon heard his voice say softly:

"You forgot the girl. She was where she could see your hands—and she didn't blank her mind to what she saw."

Tobul's hands moved over the intricate controls. Almost as an afterthought, he said to Jarthur, through Brandon's mouth:

"You are no longer needed. Go."

Jarthur's sad eyes became furious.

"See here, Brandon! I don't know what kind of madness this is—probably some secret you've stolen from this place. But you're through looting. I'm going to send you to Phobos if I die doing it!"

"You will," said Tobul calmly, and shrugged. "Please yourself."

Kymra said steadily: "You don't know how to control the force. Every living thing beyond its focus will be destroyed, and part of the inanimate substance, before you can stop it even by smashing the projector."

"You said yourself, Kymra, that Mars is more important than any of us."

The prism began to glow with its queer, black light.

And Brandon said desperately: "Tobul!"

"I'm sorry to cheat you of your body, Brandon. But this must be done."

Black rage suddenly took Brandon's mind, drowning out even the flashes of Jarthur's needles dying against the force screen.

"You fool!" he snarled. "Can't you see that the world has changed? The things you're fighting over don't exist any more!"

"Silence, Brandon!"

The black threads were weaving themselves again around the focus of the projector, twisting out toward Kymra of the Prira Cen. In a few seconds they'd blast her out of existence, and the regenerator with her—and Brandon's only chance to get rid of Tobul and be a normal man again.

He could foresee Tobul's mind moving to silence his own. His hands were free from the projector now.

With a characteristic flourish, he ripped the

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PURR!

HER!

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circlet from his head and held it up.

"By this crown, Tobul, I've earned the right to speak!"

The mocking imp in Brandon's brain whispered: "Every inch the hero!" And behind it he could feel the struggle in Tobul's mind.

It seemed an eternity before the quiet, curt answer came. "Speak, then."

Brandon spoke, aloud, to Kymra as much as to Tobul.

"You say that Mars is your first consideration, and I believe you. But you still live in the past. Can't you see that the war between Tobul's people and the Prira Cen is as dead as the dust of your bodies?"

"What right has either of you to rob Mars of the other? The two of you, working together as balancing forces instead of enemies, could make Mars the greatest planet in the System. You could give her water again, and the air she's losing, the courage and will to live that she's lost.

"You could bring her the knowledge of the Lost Islands and the Prira Cen—complete, not in half-forgotten fragments. Kymra's councilors are invaluable to all humanity. What right have you, Tobul, to destroy them?"

"The world has changed. With each of you, the other is the only link to the world you knew. There can be no real companionship for you with anyone else.

"What human would mate with someone forty thousand years old? Yet you're both young. Think of that, for a minute. To live for well-nigh endless years with no one to speak to, no understanding, only awe and fear and perhaps hate?"

"For Heaven's sake, Tobul, if you're the brave man, the great man you believe yourself to be, face this out and see the truth in it!"

The little black threads wove out and out, and Kymra's eyes were burning gold, proud and steady.

Sylvia spoke up furiously. "He's right, you know. You're just fooling yourselves. You don't care who you hurt as long as you don't have to share your power!"

"That's not true," said Kymra gently. And Tobul echoed: "No—"

Brandon felt Tobul's mind gather into itself, thinking. For an instant his body was free from compulsion. He raised his foot and sent the projector crashing to the floor.

It shattered, became meaningless, shining fragments. But the fragments lay about a gaping hole, where the little black worms had gnawed.

Jarthur had stopped the useless firing. His eyes were dazed, bewildered, but his back was stubbornly straight.

"I don't understand," he said. "I may be only playing into your hands, Brandon. But if there

are really beings from the past who can help Mars to live again—I beg them both to do it."

Tobul whispered in Brandon's mind: "What is all this to you, Brandon? You, an Earthman."

He shrugged. "I'm a human being, too. And I think I'm seeing what I've always wanted to see. The thing that, subconsciously, has drawn me to hunt up the old, forgotten places. I'm seeing the past—the past that is as real as the future or the present—come into its own."

"You're a looter, Brandon," said Jarthur harshly.

"But I've never destroyed anything. Oh, I'm not excusing myself. And I'm beginning to see the error of my ways."

"Perhaps," said Tobul shrewdly, "because this looks more exciting?"

Kymra said softly: "Your barbarian ancestors, Tobul, prided themselves on being honest with themselves. Let us be."

Brandon could feel the struggle that went on in Tobul's mind. It seemed to him that the whole universe had stopped breathing, waiting. And at last, reluctantly, Tobul said:

"Brandon speaks the truth. Much as I hate it, it is the truth. Blast you, Brandon, why did I give you my crown to wear?"

"You may have it back." Brandon was suddenly weak, almost hysterical with relief. "I don't want much—"

"Much?"

"Well, my body has served as your draft animal. I'm giving up a profitable career of grave robbing in order to act as your ambassador, your link between the past and the present—"

"Ambassador!" said Kymra, turning her imperious, golden gaze on him. "Who has asked you?"

"Hm-m-m," said Brandon. "You'll need a personal diplomat, too. Can't expect love and kisses all in one minute, after forty thousand years—Know anybody who could do it better?"

Kymra looked at Brandon's handsome head cocked back, with the wide-winged bird glittering above it and his white teeth gleaming. She laughed.

"You're mad, as well as insolent. But—Tobul?"

"Why not? Kymra, you will restore my body, of course. But before I leave this Brandon, there is something I want to do—to tame him."

Brandon's heart gave a swift, little jerk of apprehension. He stammered: "What—" But the iron grip of Tobul's will was on his mind.

He found himself walking over to Sylvia. He found himself taking her in his arms, and whispering something, and then—

"So that," said Tobul, "is how it's done now. The world hasn't changed so much!"



THE REBELS

By Kurt von Rachen

● The Kilkenny Cats were still determined to do away with Colonel Gailbraith. He annoyed them consistently and severely—by saving their stupid necks! This time they plotted to maroon him for life—a short life!—on a planetful of enemies!

Illustrated by Rogers

A sudden shadow fell across the grassless street of the Mirionite city as though a tower had been built all in an instant.

Vicky Stalton gave her little kepi a jerk over one eye and turned with caustic remark upon her

lips for Mirionites, in their gigantic legsomeness, often absent-mindedly jostled one or another of the small beings who had come there as outcasts from their own world.

The remark went unuttered, for this gangling

colossus of a citizen was edging backward in a wary crouch, electrostick in hand and attention upon something which Vicky, in her less lofty position, could not see. The quiet of the town was jaggedly torn apart by the crashing roar of a flame gun. It behooved Vicky to forget any annoyance with this bulk which caved into itself and turned into a mass of singed hair and baked flesh, for it was tottering in her direction.

Swiftly she pressed back into a circle of a private home. The ground shivered as the great being struck. The bounding electrostick nearly clipped Vicky in passing.

There came a thunder of running feet and outraged voices and, looking across the domes of the Mirionite houses, Vicky could see smoke rising and long-eared heads bobbing but no more. The bedlam was cleft, then, by a string of honest longshore curses and the eared heads closed in and dropped out of sight.

Between two glass domes Vicky could see a section of the next street, and into this short expanse of rough fiber a thing skidded and came to rest. It was charred by many arcs and would have been unidentifiable altogether had it not had a plastiron belt and holster, still bright, about it. An instant later a Mirionite bulked over it and kicked it angrily.

Vicky's legs trembled until she did not think she could walk. But she did walk, with steadiness, and her course lay close beside the angry cluster of Mirionites—for there was no other way out of the circle into which she had been forced.

She gave them a disdainful glance as she passed and they looked sourly at her. As soon as she was well beyond their sight she quickened step, turned into a narrowly curving street and came to a small glass dome which was isolated from the rest and nearly hidden in the jungle which had grown up about it. It was an abandoned Mirionite home, unprotected, as were habitable ones, by arc fences.

At the top of a curving ramp a room spread itself out in tumbled disorder: three-dimensional space charts had slid until they were half on, half off a table; a brace of pistols in tarnished and worn holsters were hooked over a wall peg close by the bed; three glasses were upset in the middle of a low table, crowning the litter of empty thermotins and food scraps; a pair of heavy space boots were crumpled like mangled legs upon a chair; a cape was slumped upon the rug, its collar stained and smeared with rain and mud; a small metal box containing cubes about a centimeter square was upset into a space helmet which topped the tangle contained by an open locker.

Steve Gailbraith, unshaven, unkempt, was sprawled face downward upon the bed, arms flung out, booted feet jutting over the edge.

He awakened very slowly to the hauling and pommeling to which he was subjected, opening and closing a parched mouth in an attempt to utter blasphemies against any intruder. Finally Vicky gave it up in favor of something more violent. She marched to the sink, drew a pitcher of icy water and dumped the whole upon Steve's head.

Drenched, Steve sat up, mopping at his eyes and muttering incoherently. He saw Vicky and glowered at her from behind the cascades which poured down from his crown.

"What's the matter with you?" said Steve, grouchy with the early hour and a hangover.

"Wake up!" demanded Vicky.

"Why?" growled Steve and would have lain back again had she not swiftly begun to fill the pitcher anew. "All right. All right." He stumbled to the sink and tried to get himself in order and then, through the towel, snarled: "I'm going to get one of these reptiles they have and chain him at the bottom of the stairs. I'll put juice in the banister. I'll set a trap flame across this room."

"You were drunk," said Vicky.

"So I was drunk. So I had to do something to keep from going crazy in this damned place."

"You were drunk on *dak*," said Vicky, pointing a finger at the small metal box and the white cubes in the locker.

"So I was drunk on *dak*. Since when did you get yourself a license to lecture on temperance?"

"You never drank much before."

"I was never put in the last end of creation for six months either. What am I supposed to do, go crazy just to satisfy you?"

"When you first landed here you started to make plans of what to do with the tribute you connived to get out of the Mirionites. You were all on fire at the idea of constructing a small space fleet and attacking Earth, wiping out Fagar—"

"And so I've forgotten all about that, have I?"

"You've even forgotten that Fagar exiled us all. You've forgotten you were an officer of the royal navy, what's more important. And you've forgotten you were a man!"

He glared at her and filled a glass full of water. Into this he dropped one of the small white pills which would turn the water into a pint of tasteless white nectar.

Vicky, the Torch of Liberty girl, whose example had led the Earth revolt to victory, had lost none of her flame and spunk for having been thrown out after the end was gained. Vicky was no aristocrat nor even one of the officer class, but one of those strangely beautiful and brilliant sports which sometimes appear out of the gutters and tenements to confound biologists and sociologists. With a savage hand she smashed the glass from Steve's grasp.

"Keep that up and you'll be a drunken swine.

You've pulled us out of tough spots before and you're going to do it again. Another Earthman was just killed in the town by Mirionites!"

"So I am supposed to go out and shepherd the dear darlings," said Steve. "Dave Blacker is always yowling about being their leader. Let him lead. Besides, those devils of his have it coming. They try to take everything in sight. What thanks have I gotten for anything I've done? They leave me alone as though I had invisofever. To hell with Dave Blacker. To hell with Jean Mauchard. And right now, to hell with you!"

"So you aren't going to do anything about it?"

"You are a very brilliant woman."

"You're going to forget all about attacking Fagar and righting the wrongs he's done us?"

"Maybe I've already forgotten. Get out and leave me in peace!"

Vicky looked at him ragefully. Steve Gailbraith, a man of courage and imagination, could sometimes be very trying. He had set out to cure himself of a heart broken by the actions of man and he had cured himself entirely too well. He had ascended now even above the plain of revenge.

"You're a fool," said Vicky.

"Get out," said Steve.

She lingered, trying to cull something from her training as a propagandist which would set this human hurricane into the action of which he was capable.

"All right," said Vicky. "Blacker, no longer restrained by any fear of you, is going to do his worst to these Mirionites. The Mirionites, no longer in awe of you, are going to murder the lot of us. And you'll be all alone, Steve Gailbraith, on a very lonely planet."

"I'm cheering."

Vicky switched angrily at her half boots with a flamstick and then, with a sniff of disdain, turned on her heel and marched down the steps.

To think that she could actually love that man, ever. Well, she hated him right now for a spineless, drunken sot. Officer! Gentleman! Bah! He wouldn't be picked by a space freighter's press gang!

Traitorously her mind fell back to how he had kept Blacker from wiping out the Sons of Science, how Steve had plucked, single-handed, a war vessel from space to help their escape, how he had brought them down here and snatched them from the arcs of the Mirionites by strategy which was almost diabolical in its brassy daring. She wrenched her mind back to her rage and thereafter nursed it carefully.

There was Steve, storing up the tribute he had extracted from the Mirionites and which was paid each month. He conjuring the myth of a mighty commander behind him, Steve had so far managed

to keep things traveling in his own direction. But soon the Mirionites, tired of the insolence and depredations of the small beings who had descended upon them, would pierce that myth and slaughter them all!

She and Steve had been growing apart of late, as close together as they had been after landing here. For she could have no sympathy with this lethargic waiting, having already tasted of doom and feeling that waiting would only bring them death. Mildly, at first, she had sought to rouse him and then, when he neither reproved her nor, indeed, seemed to consider her opinion of any value whatever, subjecting her to man's usual arrogance, she had begun to seek ways to stir him up. And now she knew that she had failed, and failure had a bitter, heartbroken flavor.

She saw a party of Earthmen coming from out of the Mirionite city, bringing what was left of one of their number. Dave Blacker was with them and she fell into step beside him.

Dave Blacker, one of the original instigators of the revolt which had put Fagar in power—a fact which made him dangerous to Fagar and which had caused his exile with all his three hundred shock-troop longshoremen—slogged along in angry silence beside the covered stretcher. In his teeth he had the ragged remnant of one of the cigars he had caused to be manufactured from plants found here. On his massive, dark head was a round, civilian hat. Despite the steaming heat of the day he wore a topcoat of loud hue, possibly to hide the almost vanished state of any other clothing. Around him walked his men, as ragged as he.

"What happened?" said Vicky.

Dave fixed her with a glare which he meant for the Mirionites. "No apology, nothin'." They said he stole a ring. To hell with what they said! I got a bellyful of their damned insolence!"

"So have we all," said Vicky. "What can we do about it?"

"Do, hell! We can do plenty if we've got a mind. We got the *Fury* and even if she won't ever fly again she's got plenty of guns left."

"If anything is to be done at all," said Vicky, "you are the one to do it."

This compliment, the first he had ever heard from Vicky Stalton, took Blacker between the eyes. She was a noted beauty and even the rigors of the long revolt had not dimmed the luster of her, not even the battered little kepi and tunic could hide her from desirous glances covertly cast. But Vicky Stalton was loved by Steve Gailbraith and that firebrand had a habit of producing strange destinies out of the air. Men might be gasping for a smile from Vicky, but not so hard that they failed to see the awful and unpredictable shadow of Gailbraith towering behind her.



"Where's Steve?" said Blacker.

"Let's forget Steve," said Vicky, looking at Blacker with a certain look. "You spoke of plans?"

"Hm-m-m," said Blacker, with an oblique glance at her.

"I'm no spy for Steve. God knows, Dave, he hasn't the least interest in anything which happens around here. A man of direct action may be able to accomplish much—but not Steve. Not now."

"Hm-m-m," said Blacker.

They walked then in silence across the shimmering scorch of the landing field, approaching

the decaying bulk of the *Fury*. A quiet crowd of Earth people awaited them and opened to let them through.

"Who is it?" said Jean Mauchard, the scientist. "Svessner," said Blacker.

There was a scream and a young woman tore at the blanket on the stretcher before she could be stopped. She dropped senseless to the ground.

The group went on past the *Fury's* nose and to the little burial plot which had been robbed of the encroaching jungle. The sullen scrape of spades began to hollow Svessner's last resting place.

"Gotta do something," growled Blacker.

"You're the man to do it," said Vicky.

"Hm-m-m," said Blacker.

A week later—nine and a half Earth days upon this planet—Vicky Stalton sought to escape the heat of the long, open walk to the landing field from the town by resorting to a jungle trail, winding along the ridge which backed the collection of Mirionite domes, for here it was at least shady.

As she came near the reservoir she paused, thinking she heard human voices somewhere near, but noticing the brook which trickled into the hemisphere of placid, crystal water, attributed the sound to that and went on. Skirting the basin upon its smooth path, she parted a cluster of vines which had lately obstructed the way and was on the verge of stepping down the chiseled flight of stairs here when she beheld Steve.

He was sitting in a small, ramshackle pavilion which, though it was protected by trees from the sun, yet commanded a view of the town below and the landing field. His tunic was open at the throat, a tunic to which clung, by precarious threads, battered flight colonel's planets. His hair, stirred by the gentle wind, brushed his lean, aristocrat's face. He looked tired and dejected.

Sitting some three paces from him, on the step, was Brok. Since the day when they had retaken the *Fury* and Brok, charged by a petty officer for "revolutionary thought," had been brought from the brig—a place he had never thought to leave save to attend his funeral—he had not been far from Steve. He was a huge being, as men go, a Negro with all the brooding sorrow of his race upon him.

Brok was quoting, monotonously but in a low, pleasing voice, one of the hero poems from Frale's great "Conquest of Space," and Steve listlessly let the rolling phrases sweep by with the wind.

A small stab of remorse pained in Vicky's heart. Sometimes, when she had not seen Steve for days, just looking at him hurt. There was something so grand, so free about him, something so charming in his ease and careless strength. And now

to see him patterned with shadow and light, half sleeping, half dreaming—

“—and the mighty swords of flame
Carving out hot destiny
From worlds unfettered all by cloud.

To sing again with newborn joy
That mankind was not decadent
That furious sons from Earth's unrest—”

Vicky sought to draw back, but her eyes were too much Steve's and a vine caught her kepi and threw it down, like a challenger's glove, to the floor of the pavilion.

Steve started out of his reverie and the soft clank of a holster flap was all there was to denote that Brok had not been training a flame gun upon the vines during all his quoting.

Steve raised a hand to prevent Brok's firing and, picking up the kepi, looked up into Vicky's startled face. She put a better demeanor upon herself and walked somewhat insolently forward. She took the kepi with a jerk from Steve's hand and tucked some of her rebellious curls under it. She wanted to go on down the path, but she lingered, not admitting the hope to herself that her desertion of Steve could be repaired.

“My, my, my,” breathed Steve, saying, manlike, the wrong thing. “It seems that we are not the only ones who must be out prying and spying into lives. You may return now and report to your darling that Steve Gailbraith is still too bored to trouble himself with teapot hurricanes.”

“Spying!” said Vicky. “So you have been spying!”

“The lady pales,” said Steve. “It becomes her. Can you still blush?”

“I've done nothing to be ashamed of!” she stormed, stamping her boot so hard that the ancient platform groaned in alarm. “Men are killed in the city every day. There is hell brewing, and yet you sit and listen to your servant croon poetry!”

“Men have died before now for pilfering and men will die again,” said Steve. “Put a leash upon that lawless horde of Blacker's devils and upon the plans of Jean Mauchard and you'll have peace enough. But I made no reference to that.”

“What are you insinuating?”

“One does not have so far to look to see you parading with Dave Blacker. That mass of corrupt compulsion would, of course, have a distinct appeal for a guttersnipe.”

The insult, delivered in a brittle cold voice, was more than a slap. There was no sympathy, no hope in Steve's half-lidded eyes, only bitterness and disgust.

“You . . . you—” she choked. “You rotten-mouthed scum! Perhaps you would be pleased

to know that Dave Blacker and I are to be married!”

A small patch of color stood on Steve's high cheekbones in ghastly contrast to the pallor of his face. His throat cords grew taut. After a moment he again had control.

“Married, eh?” he said musingly.

“Yes!”

“Natural result of the meeting of two so much alike,” said Steve quietly. “A fool in the likeness of a swine and a swine in the likeness of a fool.”

She brought the limber length of her flame-stick across his jaw and, rigid with rage, stalked down the steps and out of sight in the jungle.

Brok leaped up and, with a pad taken from the metal kit at his side, began to wipe the blood from Steve's lips and throat. With a furious thrust Steve sent him spinning against the railing, Brok half senseless from the blow.

Steve sat back against the column glaring into nothingness, rapid pulse beats making his temples and throat throb.

For nearly an hour he did not change position or expression and the blood caked upon the collar of his tunic unnoticed. Brok crouched upon the step in troubled silence.

The giant Negro might be able to quote endlessly from the most learned pens of philosophy but this had nothing to do with the directness of his reasoning or its simplicity.

“You like Miss Vicky. I shall go and kill Dave Blacker.”

Savagely Steve turned upon him. “If there is any killing to do I can do it and don't forget that. But why kill him? Why even think about him? You think I love her, do you? I hate her and I hope she rots! Let her go, do you understand? Let them both go! What do I care what they do? What do I care what—”

Suddenly his voice broke and he plunged his face into his hands as though to wipe away any memory of her.

Gradually he calmed and his jaw grew firm. Carelessly he said: “The last line of that magnificent satire you were quoting was, ‘—furious sons from Earth's unrest.’ Go on.”

Brok, pain in his eyes as he gazed at Gailbraith—low for Brok knew the agony of jealousy for all his slowly state—went on with the hero poem.

As Vicky Stalton entered the passageway to the wardrobe of the *Fury* she heard an enthusiastic cheer blast forth, and when it died, the vibrant, uncouth bellow of Blacker continuing.

Edging through the thick mob by the inner door of the air lock, Vicky looked across the smoke-choked and sweat-reeking interior to the long board where Blacker was abusing green cloth with an urgent fist.

"—and you thought it was brilliant and clever!" roared Blacker. "All Gailbraith did next was to lure down a war vessel and proceed to take it with our help! And did he need that help!"

A cheer rolled out from the assembled long-shoremen and converted ex-Fagar crew members. Even a handful of the Sons of Science, once Blacker's bitter foes, echoed the tumult.

"We had to help him when he had gone that far," cried Blacker. "But did we ask to come to this place?"

"NO! NO!" shouted the crowd, completely forgetting that it had been Mauchard's mutiny which had brought them hither and that Gailbraith had definitely saved their necks.

"And are we expected to rot here forever?" cried Blacker.

"NO!"

"To rot here while Gailbraith accumulates tribute from this planet to use for his own ends? While we are set upon each and every day by Mirionites?"

"NO! NO! NO!"

"Are we to be held in check by a drunken sot when we can still make peace with Fagar?"

"NO!"

"There are thousands of bars of delinium here in this place. There are millions more in its mines. There are thousands of bolts of metal fabrics finer in weave than any to be found elsewhere in all the Empire of Space! And you do not think this will buy us welcome in our homeland?"

"YES! YES! YES!"

"And do we not yearn to go back to the green fields of our birth, to the blue waters of our planet, to the glorious mountains and valleys nowhere equaled in the Universe? Are we to abandon forever the cities where we are accepted as brothers?"

"NO! NO!"

"And are we to admit that we are less clever than Gailbraith? To admit that we cannot achieve a small coup of our own not more than on a par with what he has already done?"

"NO!"

"Then you all agree that I am to be wholly empowered to act for all of us in the negotiations with Fagar. All of you?"

Pressed sailors, outcast scientists, beefy long-shoremen nearly made the old battleship's hull disintegrate with their cheers.

Dramatically Dave Blacker jabbed a frayed cigar in his mouth, clamped his hat upon his head and strutted from the room, followed by the tumult. Eight high henchmen dashed after him to attend a conference they knew would instantly be called.

Vicky sought to catch Blacker's attention in passing but she only received one of his winning leers before she was thrust back. The preven-

tion of her following seemed intentional and, with a flash of resentment, she wrested free and stalked into her cabin. There she was glad that she had not followed Blacker, for she felt ill and nervous.

And it was intentional that she had been blocked, for Blacker, before he shut the door upon the group he had assembled in the communications room, made sure she was not present.

Blacker swept, with a wave of his hand, the lot of them to chairs and then went roving about before the huge panels, growling in thought. Suddenly he faced the henchmen.

"Steve Gailbraith caused Fagar most of this trouble. Fagar would be very glad to get his hands on his late cohort. Any of you gents got any objections to something happening to Steve Gailbraith?"

There was none, for it seems a characteristic of man that deep obligation is nearly always repaid with deeper resentment.

"You!" said Blacker, jabbing his cigar at the communications petty officer at the screen and dials. "You've kept an interbeam goin' between here and Earth?"

"Yessir," said the petty officer.

"O. K., buddy, ride it. I want Fagar."

The petty officer began to feed the thread which spanned the light-years and which he had hooked, outlaw fashion, into that of the unknowing Earth warship *Victory* which must be somewhere in this Galaxy.

Into the cube of screen came the face of the duty officer in the navy department. For a moment his face was disinterested, for he thought this a routine call. Then, as he saw a man without uniform in his own screen and back of him a heavy-built fellow strangely familiar, he leaned forward curiously.

"This is Center. Who are you?"

Blacker stepped to the board. "Dave Blacker. You've heard of me. I want Fagar and I want him right now. I got some news for him."

"I am sorry, we cannot—"

"Get me Fagar, bucko, and get him quick or he'll have those gold stripes turned into black ones!"

The officer's face faded and a narrow and evil visage shimmered and then took form. It was a secretary in the palace.

"You have business— BLACKER!"

"Yeah, Dave Blacker, Ratpuss. Put Fagar in front of that thing."

"His excellency—"

"Get him!" snarled Blacker. "I got something to say to him that he'll be interested in hearing!"

Irresolutely the secretary stared into the room from the screen and then, leaving it on, swung his beam downward so that Blacker was looking

at the palace floor. This was a trick used by the dead emperor and it caused Blacker to emit a snort of laughter. In a moment the beam swept up a trifle, displaying boots, then knees, then tunic and a wide golden belt and finally the head and shoulders of Fagar, Dictator of All.

The face was like pasty putty, and the eyes were small and as black as the coal Fagar had once mined. A short crop of greasy hair bristled up from a narrow brow. A huge but lipless mouth gave him the last appearance of cruelty.

"Hello, Fagar," said Blacker. "I've got some news."

"So it is Blacker," said the powerful, brutal voice of Fagar. "I understand that your expedition was not quite as successful as it might have been."

"From both our lights," said Blacker. "But don't get any idea that we messed things up. We're going to turn over to you the guy who did. You remember Colonel Gailbraith?"

"Oh, yes. An energetic young man."

"You remember him all right. How much delinium is on his head?"

"Two kilograms!" snapped Fagar.

"So much?" said Blacker, impressed. "Well, we are going to collect that. Outside of the fact that old royal officers don't appeal to us, we don't like what he's done with us. Listen, Fagar, we have eight thousand bars of delinium and mines with millions more. We have twenty-one thousand bolts of metal cloth finer than you have ever before seen. We have a whole planet to offer you. And we have Gailbraith."

"And what do you want in return?" said Fagar greedily.

"Safe conduct for all of us and amnesty on Earth. I'll disband any organization I headed and enter no more into politics. The Sons of Science give the same promise. We want to come home."

Fagar half-lidded his eyes. "I agree. What must I do?"

"Send any ships of war you have in Canis—here to this planet. We will knock off the defenses for your lads and all they have to do is land, take possession and scoop up the loot."

"That is Mirionite, isn't it?" said Fagar.

"Yeah. They're a pushover."

"Very well. Hold the wave."

Fagar vanished out of the screen but was back within ten minutes. "In ten days you will be visited by the fleet there. I am looking forward to seeing you again."

"You'll see us!" grinned Blacker.

The screen died down and blanked. Blacker turned to his henchmen with a confident grin. "You see? It was as easy as that. And now we have just ten days to knock off the arc batteries

around here. We'll figure that complete tomorrow."

Blacker swaggered out of the communications room and down the ladder. A moment later he knocked on Vicky's cabin.

When she came forth she had veiled any resentment she felt, for she gave him a smile as he led her along the passageway to the galley. Here he poured them both cups of hot Mirionite tea.

"Well?" said Vicky.

"Well, it's done," said Blacker. "I got hold of Fagar and traded him this planet and the loot for our amnesties."

"You did?" she cried.



"And within a month we'll all be back on Earth, free people."

"What guarantee did you get?"

"Why, his word, of course."

A shadow flicked over her eyes and she lowered her head to drink.

Blacker put a thick paw under her chin and lifted it up. "Well? How about a little kiss to celebrate?"

"The bargain," she smiled provocatively, very glad to draw away from that uncouth touch, "had to do with our being already on our way to Earth."

"Yeah, but—"

"But," said Vicky, "we are still here." And setting down her cup she slid past his reach and out the door.

Back in her cabin she stood in the center of the floor, arrested by a sketch of Steve she had done. This she had put away in a locker, but that locker door stood open and Steve was looking at her.

A bitter smile distorted her mouth. "I thought you loved me. I thought all you needed was a little jealousy. Well, we're on our way to Earth, do you hear? On our way to Earth!" And she slammed the locker shut with violence. Then, paradoxically, she threw herself on her bunk and wept.

Many nights later, while three small comets paraded their subdued light across this plain and two small moons looked disinterestedly down, a long red gash of fury exploded just outside the wall of the Mirionite city. Instantly, in twenty different places, flame cartridges eagerly answered the signal, spraying destruction and alarm through the cluster of glowing domes which contained the huge and shaggy inhabitants.

Brok awoke on the instant and pressed his face to the transparent wall and then, seeing nothing he could identify, loped up the ramp to wake Steve.

But Steve was already awake, had been awake for tortured hours, and he met Brok midway. Steve was throwing two holsters and belts about his waist and angry outrage blazed in his glance.

"What is it?" said Brok.

"Blast cartridges mean humans," said Steve. "If I am not mistaken our cohorts have blown their tops in most untimely fashion. Arm yourself with stick and grenades."

Brok draped the shining straps across the black silk of his chest and sped after Steve.

The town was ablaze with all the lights of which it was capable. The arc barriers which protected the individual houses were crackling and hissing, filling the atmosphere with the acrid ozone.

Steve swept Brok into a shadowy circle and to the ground, and an instant later a Mirionite pa-

trol, racing towers in high silhouette against the glowing sky, shook the brush and trees in their passage.

Forty seconds later the jungle in the direction of Steve's house was alight with the vicious snap of arcs and a howling jabber bade Steve to come forth. There was a wait and then a renewed burst of electricity as they sprayed the old residence into so much molten silica. The patrol came racing back and swept out of sight in the city.

Steve was up and following nearly on their heels when the crash of flame guns suddenly rose to a crescendo on the walls. An arc turret burst into garish flame and a Mirionite soldier reeled out of it, a pyre, to drop to the ground in a geyser of sparks.

With the suddenness of a thunderbolt and the fury of an earthquake a gigantic explosion splashed fire into the sky. The lights of the city went down to flickers, gasped and expired. The blazing powerhouse and the crackling turret shed bloody light upon a scene of tumult which was cut jaggedly by long arcs and sprayed with flame.

Another turret exploded with a crash which knocked down a section of the wall, and by its light Steve saw a company of Mirionites racing outward to the plain.

The company was met, point-blank, by a wall of fire from a rank of Earthmen, and the Mirionites were crisped and set ablaze, skidding as their momentum carried them forward. A turret came into crackling action and an arc swept out of it and slapped down, explosively as it touched each man, the ranks which had annihilated the Mirionites.

"Two dozen men dead," said Steve. "Why?"

"Perhaps Blacker has ordered a revolt."

"Quiet," said Steve, pressing against the wall. "We're behind the enemy and there's nothing we can do here."

Half a dozen companies of Mirionites, yanking along a battery of gigantic artillery, began to distribute themselves behind the wall, the end of their line reaching swiftly toward the point where Steve and Brok had stopped.

Steve, beckoning, raced through the shadows up the hill, toward the cooling wreckage of his late residence. As he passed he gave it a wry glance, for it had stored a fortune and more of delinium and metal cloth.

Behind them came yet more Mirionite troops, covering ground at ten yards and more the pace, evidently sent to block the hill path to the plain.

Steve knew they were being overtaken, but he raced up the side of the reservoir in a final spurt, hoping that the Mirionites would pause to form a line. The Mirionites did not. Steve yanked

Brok down under thick foliage and the huge feet thudded hard by.

"We're cut off completely," whispered Steve. "I hope those damned fools out there know what they're doing; I don't."

"We can attack soldiers from rear," said Brok, whose courage and lack of recognition of the vast difference of arms and size was capable of doing just that.

"I'm not dying in a fight," said Steve, "until I at least know what it is all about. I'm through," he added out of bitter memory, "fighting myself ragged for a principle."

Brok tried to understand it. "You mean you are scared to attack these soldiers in back?"

"Yes, I'm scared. How would you like to attack a tank with your fingernails. It's the same thing."

Brok looked at Steve by the light of the freshly ignited turrets below them and there was a shadow of regret in Brok's eyes.

Steve saw it. "We wouldn't stand a chance. We could shoot our way through them and run only to be picked off by them before we could get fifty feet. And if this company missed us, spotters in a turret would see us and burn us down."

Brok's disappointment—for he had been all geared up for battle—made him pettish for a moment. He had lost, just now, a great deal of his faith in the mighty Gailbraith. "If we cannot go through, we can only stay to be caught and killed in the morning."

Steve glanced at him and sighed. "Some guys have the damndest appetite for suicide! Morning, Brok, is several hours hence."

"I am going to try," said Brok, his shattered confidence in the bravery of the colonel expressing itself mutinously.

"You try," said Steve, "and the first thing to hit you will be a flame shell from here." And he patted his right-hand holster.

Brok, turned sullen, lay back.

A moment later the patter of human feet sounded on the path behind them and three brawny longshoremen, followed by a ship's boy, sped by the cover. They went too quickly to be stopped, though Steve rolled swiftly out to snatch them back. He only succeeded in grabbing the shirt of the ship's boy, who, with a small yelp of terror, came crashing down on the trail. He saw Steve out of fear-distended eyes and then, recognizing himself, quickly and guiltily composed his features.

The three longshoremen, heeding neither warning cry nor the possibility of ambush on this trail, sought to dive down the steps beside the reservoir. Abruptly great hands shot down like scoop shovels and yanked them, struggling, high into the air. A roar of voices came forth instantly from the Mirionites, and their captain, huge and painted

red by the blazes on the wall and in the town, stepped into the clear and snatched the first longshoreman from the hand of a soldier.

With rage twisting his already hideous face the Mirionite captain crushed the legs of his quarry in his grip and then threw the longshoreman down against the stones and stamped, metal-shod, upon the skull. The captain took the second and yanked off his arms and tore him bodily apart. The third was set down again upon the path and told to run. When he did, half a dozen arcs flashed out and charred him to a small curl of smoke.

The ship's boy, a child named Lucky, grew pale and ill for all his attempt to remain outwardly the man.

"You see?" said Steve to Brok.

But Brok, now that Steve had failed to help those three longshoremen, was more disdainful than ever. He snorted and turned away his face.

"I see," said Steve, "that you have definite ideas about war. The idea we used to hammer into privates, Heaven help them. Well, if you don't like what I do, keep it to yourself. And if you disobey anything I tell you, remember that you'll be shot." He moved close to Lucky and whispered, "What the hell is going on? How did you get mixed up in this?"

Lucky, whose parents had died of green fever, had been a sort of all-around mascot and boot polisher to the *Fury*. His small, freckled visage, for all he could do about it, was streaked with tears.

"I don't know. I heard there was to be an attack on the town, but nobody told me it was gonna be tonight. I . . . I saw Jecker and his pals leave and I— You won't whip me?"

"Of course not," whispered Steve gruffly.

"Sometimes I follow sailors or longshoremen into town at night and they give me a duro when I turn up and guide them home. I . . . I didn't know they were going to blow up the powerhouse!"

"What's the battle all about?"

"Mr. Blacker says we are all going back to Earth and be happy again. He says Fagar has promised it. A fleet of warships is to come and take us away."

"Oh, the fool!" groaned Steve. "The word of Fagar!"

"D-do you think we'll ever get back to the *Fury*?" said Lucky.

"No," said Steve. "But there's a chance of our staying alive."

Brok grunted disgustedly at this.

Concurrently at a distance of two and a quarter kilometers from the reservoir Vicky Stalton fell back upon the decaying ruin of the *Fury* with the rear guard, occasionally dropping to one knee

to lash a blast of fire into the ranks of the Mirionites who had grown brave under the protection of artillery and who now attempted sally after sally. The great hulks were silhouetted against the red tongues which devoured a portion of their city and their way was littered with the burning slain.

Vicky's cheek was blackened from the smoke of her weapon and her kepi was lost, allowing her hair to stream down to her shoulders and give her a tangled cap of gold.

The rear guard was nearly to the ship before a covering blast from the *Fury* checked the attackers and allowed the remnant of the men who had gone out to find shelter in the battered hull. Under the onslaught the Mirionites fanned out and took cover behind the hangars of their ships to begin a devastating cross fire upon the gunners who harassed them.

At the farthest point from the *Fury* a spheroid leaped skyward, followed closely by two more. The *Fury* put smoke where the first had been, but the second and third were able to outreach the searching blasts and gain altitude from which they began to spray violent shocks of electricity, the while moving too swiftly to be struck.

Hands hauled Vicky up through the port and she made her way swiftly to the bridge, not even waiting for her hard breathing to ease.

Behind her, Jean Mauchard and six remaining Sons of Science sweated despairingly at the last remaining flame cannon. Underfoot were the bodies of three of their dead, killed by the arc of a spherical vessel above, a shot which had also disintegrated the breach and sighting mechanism of their last weapon. Despite the killing heat of the turret, the seven had managed to drill the barrel above the heat-sealed chamber and now, like hell-blackened demons, fought the gun by muzzle loading and touchhole fusing.

Each time the piece fired it swept a wide path across the troops of the field—but it was not firing often enough. Arcs from the city were searching for this remaining turret and the old *Fury* was groggily rolling under each impact of the fire.

"It's your fault!" cried Blacker, shaking clenched fist in the scientist's face. "You should have investigated!"

Mauchard paused to face his accuser. Mauchard's fine old face was powder-pitted and his hair was scorched to a convict cut. "I am guilty? Why—" But here he faltered. "How was I to suspect that they would not be incapacitated by the destruction of their power plant? How was I to know that our shells could not burn these hangars?"

"You yelp about being a scientist!" railed Blacker. "And you made blunders like that!"

"I am a scientist," said Mauchard, scanning the forlorn field before them from whence would come

their death before the hour was done. "But right now I wish that I were a military man." Pensively he added, "Colonel Gailbraith would have known they would naturally have auxiliary power units. He would have understood the necessity of ascertaining the structural material of their hangars. And he would not have sent out a rabble army to face murder before that wall."

"To hell with Gailbraith!" howled Blacker. "He got what was coming to him! Get on that gun, figure out something, do something!"

"You—" said Vicky, suddenly chill, "know he is dead?"

"Of course I know it!" cried Blacker. "Do you think I wanted him here hogging the show? Do you think I trusted him after all the tricks he's pulled?"

Vicky was holding to the port, anger alone keeping her senses with her. "You left him unwarned! You left him in that city to die!"

Mauchard glared at Blacker. "That was one part of the plan you didn't see fit to tell me about. The only man knowing anything about such concerns, the only man who, I realize now, is competent to protect us and direct us, you have murdered!"

The *Fury* was eating up sections of the defending wall now, taking down a turret here and there. But the volume of fire from the town seemed to be coming from the other side of it and over it and was not diminished in the least.

Vicky moved away from the port, but just as she turned her head something in the heavens caught her glance. She stared aloft, unbelieving. But the three small comets had been augmented by ten long streams of rocket fire!

The space fleet was here!

Down swept the long, black cruisers, guns and then blasts sweeping the two Mirionite ships into spacedust! Down stabbed the curling, brilliant breaths of the guns, rooting up sections of wall every instant!

The air was alive with the throb of pulsating tubes and the shock of thundering flame. Turrets and domed forts shattered into fragments.

One sweep across the city was enough, for when the space fleet swooped back not one arc reached up to them. Foot Mirionites and a terror-racked governor fled to the ridges, throwing away their arms or cast themselves down in the streets and on the plain in supplication to the invaders.

The ten ships landed in ragged formation upon the field and their gaunt, black hulls spewed forth landing parties who swiftly began to round up and clean out the remaining defenders.

Blacker, roaring his glee, swung down the hatch and scuttled below to leave the ship and

greet their deliverers. Mauchard stepped back to allow Vicky to precede him.

But Vicky had no more than placed a foot on the ladder when a great silky arm struck like a black snake and yanked her back while a pair of light boots kicked the hatch cover into place and stood upon it.

The group which had been awaiting to ascend fell back before the muzzles of the hand guns which rested so indolently in Steve Gailbraith's hands. And each man, when one of those guns fired and the lights went out, thought he himself had been struck.

In the semidark, the group lighted only by the blazing fires of the town which sent shafts through the smoking gun port and bathed them all in scarlet, Brok quietly stripped them of weapons.

Too startled to cry or to speak and too relieved to longer carry on, Vicky sank down upon a shell, staring at the tall personification of assurance and competence which had so suddenly blocked their exit.

"I wouldn't shout to the admiral's fleet, if I were you," said Steve to Jean Mauchard who had edged toward the ports. "I don't believe you'll have the pleasure of meeting him—at least not for a long time. It happens that you are all my prisoners—and very valuable prisoners at that."

"Valuable?" goggled Mauchard from beneath singed brows, for he had a thought which fitted around the subject of ransom but could not light upon it.

"Watch out there," said Steve. "You made a mistake about customary auxiliary power units and, as I heard from the shell hole up there, about the material of the hangars. Why make another mistake slightly greater in fatality?"

"But you didn't stop Blacker and Blacker—you must know—"

"That is why I didn't stop Blacker," said Steve indifferently. "Watch, gentlemen. For his greatness, Fagar's admiral, is about to stage a drama for you. A somewhat chilling one, no doubt."

The group eased toward the gun ports and stared across the brightly illumined field to the

circle of landed battleships, cruisers and destroyers. Every man, woman and child who remained alive of the Sereon Expedition, with the exception of those held here by Steve, streamed across the chopped earth to form an ever-widening ring about the flagship of their "deliverers." Floods from the upper shell blazed down upon them and turned them into a bluish-white expanse.

With cool carelessness, Steve cocked a radio-ranger toward the group and tuned it so that its screen became great with the picture of the gangway which was now being let down and the front rank of faces which included Blacker's.

A port opened and Admiral Bospor stepped out to the head of the gangway. Without speaking, he considered this mob of tatterdemalions which filled the inclosure made by his ten vessels.

"Are we all here?" said the admiral, smiling strangely and letting his small black eyes rove. "I'll say! As many as are still alive," said Blacker. "Brother, you sure came in the nick of time. Another half hour and we'd all been dead!"

"Well, well," said the admiral, adjusting his cap upon his shining bullet head. "So we are all here. What about the various items of interest and worth which you mentioned, Blacker?"

"In the town. The whole place is full."

"Any particular cache?"

"I tell you its running over with the stuff," said Blacker. "Brother, I'll sure put in a good word to Fagar about you."

"That," said the admiral, "is very, very kind of you, indeed."

Blacker leaped up to the first step and faced his assembled people. "Three cheers for Admiral Bospor! Hip!"

"HIP! HIP! HURRAH!" bellowed the mob within the circle of ships.

"Three cheers for Fagar" cried Blacker.

"Hip! HIP! HURRAH!" roared the multitude.

"Now," said Blacker, glancing up at Admiral Bospor, "what disposition are you going to make?"

"That, my dear fellow," said the admiral, "is a

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surprise we have been holding until the last."

There was something in the fellow's tone which made even Blacker shiver. But he had no further chance to question for the admiral had stepped backward into the ship and the heavy port had clanged securely shut.

From a speaker invisible to the crowd came an order, "Ready with small arms! Load! FIRE AT WILL!"

Some understood and tried to run. Others stood stupidly looking at the engulfing walls of the vessels and so blocked the way. Others screamed for mercy and fell on their knees. All might have saved themselves the effort. A withering sheet of fire which blazed into them from all sides sickled greedily, eating from the outmost circle steadily in toward the center. Smoke shot up from the charring bodies and dust, kicked by charges, mingled with it. The mob milled and churned, screamed and prayed, reviled and begged—and went steadily down to eternal silence.

For fifteen minutes charges chewed into the mass and made it stir long after it had ceased to move of its own accord. And then, on disinterested command, the firing stopped. A few patrols came out of the ships and went about through the slain, pistoling a head here and there and making certain of all, wandering like black ghouls with a thirst for the last sparks of life.

Steve, who had been leaning against the warm muzzle of the cannon, facing neither port nor screen, made a signal and Brok reached up to shut off the radio ranger. The sudden removal of the firing from the turret to nearly two kilometers across the field came as a sudden and dramatic thing to all those left.

Brok had wrapped a tunic around Lucky's head, thus shutting off sight and much of the sound and now when Lucky's eyes emerged, the boy said, "What happened? What was it all about?"

"Why," said Steve, "Fagar just paid for a favor in his usual way."

One of the Sons of Science was green and ill. The others were but little better off. Jean Mauchard was staring at Steve as would a man who has just been presented with a sight of a god.

"Gentlemen," said Steve, "please sit quietly down and say nothing. This is going to be a long wait." He glanced at his chronograph. "We can do very little for the next six hours for during that time the fleet will take on provisions and water and load their loot."

That woke Mauchard. "They'll find us here! And if they go away and leave us the Mirionites will slaughter us on sight."

"Sit down," said Steve.

He set the example by lying back on a row of charge sacks. And Vicky, who still groped for

something to say, now said nothing for Steve Gailbraith was asleep.

A few minutes before dawn, Brok moved through the group to wake his lord. They held a whispered consultation wherein Brok seemed to be imparting a report of the last few hours.

"Very well," said Steve. "Rout them out."

Brok hauled at the two Sons of Science who had slept and stood them up. The others needed no urging for their nerves were sawed nearly in half by this experience and the following eternity during which men had groped through the *Fury*, pillaging her and random shots and shouts had sounded in the town and on the field. Things were so silent now that any slightest sound the group made stood hair on edge.

Steve threw open the hatch and walked down the ladder, guns in hand. After him came a still-dazed Vicky. Following her was Mauchard and his six and then came Brok with Lucky sitting high upon his shoulder.

Steve paused by the sick bay and looked in to find, as he had expected, that it held only dead men. He went on to the main port and walked down the gangway. Behind him the group faltered for, hulls glistening in the pearl half-light, the fleet still rested upon the field. They saw Steve walking away from them and hastened to catch up with him, although their fears mounted as they approached the formidable squadron.

At the side of the flagship Steve paused and indicated the sentry who sprawled inertly there, mouth open and snoring. A Son of Science hauled the man off the steps. Steve went up into the ship with confident step.

The group halted at the bottom of the bridge ladder and let Brok set Lucky down and pass through them to answer Steve's bidding. A moment later, accompanied by the crisp order to throw them out of the vessel, a number of officers bumped and slithered down the ladder. The Sons of Science controlled their gawps and threw the officers out.

Then, from compartment to compartment they went, finding everywhere men in attitudes of deep slumber, men who did not object to the roughest possible handling, which they got. The pile grew at the battleship's side until it numbered the four hundred and twenty which made up the full crew with marines.

At first the Sons of Science worked quietly but then they began to understand that the other nine ships were in like state. A feverish concern, however, did not leave them for, at any moment, they expected to be charged from one quarter or another and annihilated.

At the bridge again, having worked the ship through and back, Steve addressed Mauchard. "The loot our friend the admiral collected is

aboard here. The ship is well stocked with water and supplies, fuel and ammunition. Do you think you and your six can perform the duties of an entire crew?"

"I am sure we can," said Mauchard.

"Then warm up her fuel impulators and prepare to get away within the next fifteen minutes."

"Very good," said Mauchard and hurried off with his men to the after part of the ship.

Steve approached a gun in the bridge wing and tracked its charge belt. It was only a seven-centimeter weapon but his range was only a few meters. He sat down on the pointers ledge and waved Brok to the loads. Brok, his solemnity breaking into a white grin, fell to with a will. Here, from the vantage of the nose, they commanded the nine cruisers and destroyers and when the gun began to blaze, its fury making the echoes resound, the rest of the bridges of the fleet began to resemble cascades in a stream as the molten metal ran. One ship to the next, one bridge to the next. Even a seven-centimeter weapon, if played relentlessly and accurately could make sufficient havoc to prevent any one of these vessels from ever taking the sky again—for how could they navigate the limitless immensities of space without instruments? Without helms? And how could they land with even their auxiliary controls melted away? In the old Royal Navy, officers would have built new instruments, opened new bridges. But this was the navy of Fagar, Dictator of All. And the officers of the old Royal Navy were dead under the hot breath of Fagar's guns.

And then, aiming at the hard side armor of the nearest vessel and playing his weapon like a huge and roaring tattoo needle, Steve spelled out his name.

From the intership speaker came Mauchard's voice. "Tubes ready, sir."

"Tubes ready," said Steve. "Take the helm, Brok."

Steve laid a deft hand upon the throttles. The *Terror* shivered in anticipation, became light and then began to drift upward with her repellers. When she was a mile above the field, Steve looked down upon the city, the ships, the dark cluster of

dead, the ruin of the *Fury*. He raised his right hand in salute to the ancient Royal battleship, bidding her forever good-by and with her, his yesterday as a cadet, as an officer, as a gentleman. Full gun, then, the *Terror* blasted forward.

Vicky, her knees weak and her head throbbing came to the bridge, still trying to say something to Steve, still trying to explain in a way he might understand and so that he might forgive, still trying to tell him that her glance upon Blacker had been born of her wish to make Steve live again. But she could find no words. She moved to the drinking stand and filled a cup with water.

"I wouldn't if I were you," said Steve. "A swallow but no more."

She stared at the cup. The water had no odor and contained no sediment. "What . . . what's wrong with it?"

"Why," said Lucky, bobbing up to the bridge and using a disdainful voice he reserved for women, "I guess maybe Steve fooled you, too, huh? Why let me tell you I'm all worn out myself from carrying tons of that stuff from the town warehouses to the reservoir. And just like Steve said the space fleet watered up like they always do when they can."

"What stuff?" said Vicky with an awful suspicion of poison.

"Why, *dak*, of course," said Lucky. No odor, no color. We dumped it in and the whole fleet got dead drunk. They ain't never had no experience with *dak*. Like I just told old Mauchard, it takes a military man to think up things like that."

"What Mauchard say?" said Brok.

"Why," said Lucky, "he agreed with me. He'd better had, too, because I'd have kicked his shins in. Where we going now, Steve?"

Steve grinned at Lucky and, raising his head, saw Vicky's big blue eyes upon him. Their glance met, held for a moment and then broke away.

Vicky watched the planet go spinning away below and their trail of smoke through what remained of atmosphere. Whither bound she knew not. When she would arrive she knew not either. All she knew was that she was very, very happy. It hadn't been necessary, after all, to find those words to say.

THE END.



THE LONG-TAILED HUNS

By L. Sprague de Camp

● Concluding a two-part article on the wild life of the cities. To survive despite man's determined objections, an animal or plant has to be tough!

Illustrated by Orban

Last month we went through the urban life-zone as far as the park pigeon, incidentally cleaning up all the vertebrates in this little-studied category.

That leaves the invertebrates (a scientifically meaningless but practically useful class—which reminds one of a curious feature of the Hopi language: instead of a word for "flyer" and a series of words for members of subclasses within this class: bird, airplane, aviator, butterfly, etcetera, they have two words: one, for "bird," and another word, *masa'yataka*, meaning "flying non-bird") and the plants. These may not be as obtrusive as the urban vertebrates, but they have their points.

So much for the urban vertebrates. Almost all kinds of insects turn up in cities occasionally, but, as with mammals and birds, certain species are permanent and more or less exclusive town dwellers. As with the vertebrates, the urban insects have numerous wild relatives. For instance most mosquitoes are swamp and lake dwellers. But a few species have adapted themselves to laying their eggs in man-made bodies of water: canals, irrigation ditches, rain barrels, and such, and are seldom found except in association with man. Among these are the yellow-fever mosquito, *Stegomyia fasciata*, several species of the malaria-spreading *Anopheles*, and the elephantiasis-carrying *Culex fatigans*.

The urban insects *par excellence* are the bedbug, the housefly, and the cockroach. The housefly *Musca domestica* seems to have been an insect of the warm-temperate zone originally, as is shown by its late-spring swarming in cool latitudes, and the fact that in the very hot climate of Egypt it has two swarming seasons, May and September. Now it is found all over the world except in southern India, where its place is taken by the similar *M. nebulosa*. *M. domestica* shows all the fecundity, quick growth, unfastidious tastes, and nervous alertness that are characteristic of urban life. It lays one hundred twenty to one hundred fifty eggs at a time, preferably in horse manure. The active

and voracious maggots may, under sufficiently favorable conditions, develop into pupae and emerge as adult flies in as little as five days, though the process normally takes several weeks. The flies newly emerged from their pupae have an inflatable bladder, the ptilinum, on their faces to enable them to burrow out of their late home.

The average wilds fly, even such biting kinds as the deer fly, can easily be swatted with the bare hand. Not so with the housefly. Swing on *M. domestica*, and he nonchalantly takes off a tenth of a second before your hand arrives and lights on the back of the said hand. He spreads cholera, summer diarrhea, dysentery, typhoid fever, and parasitic worms.

Houseflies are often confused with any of several similar flies. One if the lesser housefly, *Fannia canicularis*; the beastie that is often seen circling round and round under a lighting fixture in the center of the ceiling. Another is the stable fly, *Stomoxys calcitrans*, who is notorious for biting through socks into your ankles with the sensation of a jab from a hot needle. He can be distinguished from the housefly by his protruding beak.

Cockroaches are interesting as the most primitive existing winged insects. They are not much more advanced insects than silver-fish, and have come down from the Carboniferous with little change. Of the twelve hundred known species, four have definitely taken to urban life. Of these the smallest, the slender, golden-brown "Croton bug," is the so-called German roach *Blattella germanica*. The Oriental roach *Blatta orientalis* is larger, about an inch long, with a wide, squarish body, dark brown or black. The female is wingless in this species. The American roach *Periplaneta americana* is the biggest of all, reaching a length of an inch and a half. It is mahogany-colored. The Australian roach *P. australasiae* is like the American roach, but smaller.

All these roaches have similar habits. We find



Ragweed—which should, perhaps, be known as “the Gesundheit plant,” and is known, to many, by unpleasant names, during the pollen season in early fall—

the usual fecundity and promiscuous appetites, and, despite their lowly position in the insects' family tree, a hair-trigger nervous system that enables them to scuttle out of harm's way within seconds when you turn the kitchen light on. They will consume, among other things, wallpaper, books, candy, and beer. (They really love beer.) They have one “virtue”: they eat bedbugs when they get the chance.

The urban roaches display another characteristic that runs through the urban life-forms: like the rats and the sparrow, they are dressed in somber, uniform coloring, though some of the large tropical wilds roaches are quite gorgeous insects. These latter, as you might expect, plod about in a calm and dignified manner quite different from the streaking gallop of an alarmed urban roach. They do not even show much reaction to being handled.

The other insects infesting cities belong in the categories either of personal parasites or of occasional invaders. Among the latter are furniture beetles, clothes moths, silver-fish, and termites.

Another occasional invader is that feathery, fragile little scuttler, the house centipede, *Scutigera forceps*. He is a harmless critter—as many centipedes are not—and is useful in keeping down other insects. I should say simply keeping down insects, for *Scutigera* is obviously no insect, but an arachnid. Several of the more typical arachnids, the spiders, have become mainly house dwellers.

There is no one house spider, unless the long-legged, gray *Tegenaria derhamii* deserves the title. This spider is probably an immigrant from

Europe. The family to which she belongs build flat, dense webs with a tube or funnel leading off from one corner. The spider lurks in this tube until a victim arrives. Her method of repairing holes in her blanketlike web is very simple: she walks about the web leaving her dragline as she goes, and in the course of time naturally deposits it over the holes as well as over the rest.

The spiders of the family Therididae build light, loose, amorphous webs with threads going in every direction. Of this family several species are house dwellers. One notorious member of the family shows a deplorable tendency to move into houses: the black widow *Latrodectus mactans*, which looks like a black shoe button with legs. Up to twenty years ago textbooks on spiders dismissed *Latrodectus* with such phrases as “popularly believed to be very poisonous, though there is no reason to think that the bite of any American spider is really dangerous—” Then a few investigators had the bright idea of making a black widow bite them and recording the results. They got plenty, in the form of hours of excruciating aches and pains, sometimes accompanied by convulsions, delirium, or unconsciousness. The investigators all recovered, but did not write any more books describing the black widow as harmless.

Except for the occasional invader *Latrodectus*, the house spiders show some of the distinctive characteristics of the urban life-zone; moderate to small size, dingy coloring, adaptability. *Tegenaria* and the Therididae build webs of a primitive

type; the specialized and often handsomely colored orb spiders are sometimes found on the outside of houses, but almost never inside. As spiders go, the house spiders are arachnids of a simple, unspecialized type, just as the rat is a simple mammal, and the cockroach is such a typical insect that it is used as a starting point in entomology courses. As the whole spider order is confined by its basic structure to a strictly carnivorous diet, the house spiders could not develop the astonishing food tolerance of the other dominant urban life-forms.

So much for the urban members of the animal kingdom. How about plants? We can consider two rough types: trees and weeds. (That is a "rough" method of classifying, because biologically a tree may be far more closely related to a weed than to another tree.) None of them is truly both wild and urban: The trees all depend on man's cultivation or at least tolerance because of their size, like the Indian cows. And the weeds all occur in the wilds as well as the city.

The city is just as tough an environment for plants as for animals. A vast number of species cannot endure city atmosphere, especially the air of industrial cities. The most virulently poisonous ingredient thereof is possibly sulphur dioxide, a minute trace of which will stunt or kill many plants. Nor do most plants survive the destruction of soil bacteria that results from digging, burning, and simple accumulation of soot. Of our native trees the best smoke-eaters are the willow, the cottonwoods, and the silver poplar. Of the hundred odd plants classed as weeds—meaning that they decline to die out politely in the presence of man—the prostrate pigweed, fescue grass, milk purslane, and old witch grass can grow next door to a blast furnace, though they develop such stunted and deformed plants that they can hardly be recognized for what they are. This is what one would expect; among the urban animals the main adaptations are in the form of behavior. But plants have no behavior to speak of; their chief life activity is growth, and it is their growth that is modified by the city environment.

Three trees, though really "tame" trees, are so strictly urban that they deserve consideration. I shall start with the London plane, *Platanus acerifolia*—the "maple-leaved plane," not to be confused with the sycamore maple *Acer pseudoplatanus*. Several of these handsome trees are growing

outside my window right now, looking a trifle yellow-leaved and peaked from the dry spring we have had. The London plane is one of Commissioner Moses' favorite park trees because of its exceptional hardiness under city conditions.

American park departments generally call this tree the Oriental plane, which it is not; or the London lime, though it is not a lime tree. To tell the truth it is not a species in the ordinary sense of the word at all, but a hybrid; a cross between the Oriental plane, *Platanus orientalis*, and the Occidental plane or American sycamore, *Platanus occidentalis*, which, by the way, is not the "true" sycamore.

"London plane" is far the best name, for the tree originated in England about 1670. The Oriental plane, a native of Greece and Turkey, had been introduced to England, and in 1636 a colonist named Tradescant brought an Occidental plane back from America and planted it in the Oxford Botanical Garden. Miscegenation occurred. The British Museum has the description of the type specimen, published 1700. Several huge London planes were living in England in 1919 and may be yet; some of these were probably grown from cuttings from the original tree. One such cutting was planted in the Palace Garden at Ely by a Bishop Gunning between 1674 and 1684.

The London plane is always grown from cut-



Consider the cockroach, and how he thrives. The world's changes in 600,000,000 years—from insects to giant saurians to man—haven't been able to do him in yet!

tings. The tree has what in an animal would correspond to normal sex instincts, just as mules have. Whereas the mules get no results, the London plane, when it seeds, gets results—but not little London planes. The next generation is a motley assortment of trees, some resembling the Oriental and some the Occidental plane. (The Oriental plane has deeply indented leaves, like the pin oak.) The London plane, like its parents, has a non-stretching bark that peels off in sheets, giving the tree a green-and-brown splotched appearance.

Another strictly urban tree is the "tree of heaven" or ailanthus, *Ailanthus altissima*, which, despite its name, reaches a height of only sixty feet. This native of China is naturalized in the cities of the eastern United States. Any plant's survival depends, not on its agility or eyesight, but on its ability to use and compete with other plants for the available resources of chemicals and sunlight. The ailanthus is a poor competitor; in the wilds it cannot make its way among the maples, alders, et cetera. But it just happens to be able to thrive regardless of soil and air conditions, so it gets along in cities where competition from other plants is slight and controlled.

Much the same applies to the ginkgo or maidenhair, *Ginkgo bilboa*. This is a living fossil of sorts. It is related to the primitive cycads which go clear back to the Carboniferous. The ginkgo was common throughout North America and Eurasia until the Pleistocene, when it vanished utterly except in China, where it survives mainly in temple courtyards. A famous botanist named Wilson, director of the Arnold Arboretum at Harvard, tried to track down the rumor that it was to be found growing wild in China. But he found not one ginkgo growing where there was neither a temple nor a tradition of a temple's once having been. It gets along in America by growing where the pure-air trees will not, though it will probably never be allowed to grow in large numbers: the flowers of the female tree stink.

Man has only moderate trouble in keeping the larger plants such as trees in check; the problem

is to protect the trees from the men rather than vice versa. The only large plants that grow with weedlike rapidity are the bamboos, which are nothing but colossal grasses. Most of the smaller plants likewise retreat before human cultivation and congregation. But some of them have tricks of adaptation that enable them to survive in defiance of human disapproval. These are popularly called weeds.

For instance some small plants infest cultivated land because their life cycles happen to coincide with those of the crops. Hence they are not destroyed by plowing and reaping. Others have a tolerance, like that of the London plane, for ruined soil and smoky air.

Certain tricks enable some plants to invade lawns: a habit of sending out horizontal stems or roots—technically called rhizomes and stolons respectively—from which other plants arise; or the possession of a short stem with the leaves arranged in a low crown or rosette, so that a lawn mower does not reach it. Bermuda grass is an example of the former and the dandelion of the latter.

The prunella, *Prunella vulgaris*, owes its present cosmopolitan distribution to the fact that it was once considered by herb doctors to be a cure for practically everything from hookworm to ingrowing disposition. The shepherd's purse, *Capsella bursa-pastor*, may have been helped along in its travels by the fact that some Europeans held the belief that carrying a bit of it brought good financial luck. Knot grass, *Polygonum aviculare*, a member of the buckwheat family, thrives because it endures being stepped on much better than most plants. Hence it occurs largely along paths and on much-trampled lawns. Some weeds have seeds that live for decades: plantains, daisies, the jimson.

Of the twelve or thirteen principal hay-fever weeds and grasses, the most notorious of all, the tall ragweed, *Ambrosia trifida*, and the short ragweed, *A. elatior*, are not especially urban plants, but grow thickly in suburbs and along roadsides in the East and Midlands. They are easily recognized: the short ragweed by its



deeply indented, ragged leaves and the pale-green spires of its flowers; the tall species by its similar spires and trilobate leaves. Yet probably not one hay-fever sufferer in ten knows the cause of his misery when he sees it. They are easy to eradicate by pulling up by the roots.

But promiscuous weeding of vacant lots and other denuded soil will not get rid of the hay-fever weeds for long. Most of them are annuals; they die at the end of each summer anyway, and next year a whole new crop grows from seed. Their quick growth enables them to seize naked ground before the perennial plants can get started. In the natural course of events the hardier perennials get a foothold and drive out the annuals. To remove all the weeds from an area merely means keeping it indefinitely in the annual-weed, hay-fever producing stage. It is more effective to plant the area with a non-allergen-producing weed.

When an area has passed through the annual-weed stage and has been taken over by perennial plants and, later, by trees, it contains few hay-fever weeds. Aboriginal America had few ragweeds and no hay fever. What annuals there were, were thinly scattered and had to release vast quantities of pollen per plant to keep the species going. Obviously the amount of pollen necessary varies directly as the square of the mean distance between the plants. Now that these plants as a result of man-made circumstances are allowed to grow in huge thickets, they continue to pour out the same amount of pollen per plant as before, which means an astronomically increased total pollen output. Man developed immunity to the normal density—but not to the present sort of barrage. Hence hay fever and asthma.

The ragweeds and the other annuals have in recent years spread swiftly along roadsides into areas formerly free from hay fever. I know a resort town in New York State whose Chamber of Commerce a few years ago was advertising it as free from ragweed, when the stuff was sprouting all over town out of cracks in the sidewalks. A similar state of affairs has been reported from Michigan. So the states spend money to extend good roads farther into the backwoods; the allergics flock along these roads to escape the pollens; and, since nothing was done about planting the cuts and fills and shoulders, the ragweeds march quietly after the allergics.

Perhaps the most dramatic weed of all is the common hemp, *Cannabis sativa*. It is both a cultivated plant and an obnoxious weed—for it has two products, one useful and the other highly dangerous. The first is a rope fiber, now largely

replaced by Manila hemp and jute, which come from quite different plants. The other product is the narcotic drug cannabin known to its devotees by the various names of hashish, marijuana, bhang, gunga, charras, and kif.

Hemp is a species of nettle, originally from the temperate zone of Asia. According to Herodotus it was used as a narcotic by the ancient Scythians of what is now southern Russia.

In the eleventh century a Persian Moslem sectary named Hasan-i-Sabbah founded a secret order which made spectacular use of cannabin. Hasan got control of the mountain fortress of Alamut and organized his followers into a sort of private Gestapo which systematically bumped off the enemies of the sect in Persia and Syria. The crusader Conrad of Montferrat was killed this way, not, as shown in Mr. DeMille's late movie, "The Crusades", by Saladin.

When the sect caught a recruit, Hasan or his successor would explain that absolute obedience would assure the sectary of immediate translation to Paradise at death. To prove his words the "Old Man of the Mountain" would have the recruit put into a hashish-trance. When he awoke he was in Paradise, sure enough: the best Paradise that the Old Man could stage, complete with houriis. When the recruit had enjoyed himself in the appropriate manner, he was put under the drug again and brought back to earth. The sect worked their men up to such a pitch of blind obedience that a man would instantly kill himself at the orders of a superior. The members of the order were called *hashishin*, whence "assassin". The Assassins enjoyed their reign of terror for a century and a half, until the Mongol prince Hulagu Khan ended the nuisance by capturing the supposedly impregnable Alamut and killing all the Assassins he could catch—some twelve thousand.

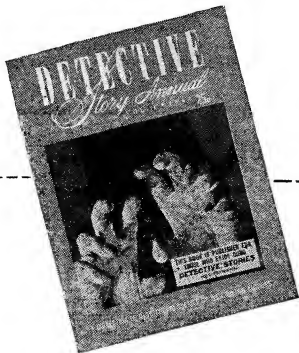
Since then the hemp has spread all over Eurasia and, lately, to North America. In New York City it occurs as a back yard weed. One lady with a hedge made of the stuff wondered why certain people kept picking pieces of it, until she found out what it was. The New York police have had added to their already heavy responsibilities the duty of watching for and pulling up hemp-plants.

Herodotus to Hulagu to Harlem—*Cannabis sativa* has come a long way. Perhaps if Richard Farnsworth had known of its history, and of the stories of the house sparrow and the Hamburg water system, he would not have disappointed Professor Glomp by ignoring the wild life under his nose. Perhaps one of my readers will some day have a chance to profit by his example.

murder confession

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STARTING POINT

By Raymond F. Jones

● When space flight's been reduced to railroad schedules, and there's no more advances to be made—then they won't need the pioneer type, the kind that can see meanings beyond the face value of things! Like the meaning of "starting point"—

Illustrated by Kolliker

To begin with, the race looked like nothing more than one of those crazy college kid stunts that you can read about in histories of a hundred years ago. But the Ajax Co. shouldn't mind about that since they got the best astrogator in the system out of the lunatic stunt.

The first I heard about it was one of those hot, restless August days when all my classes had seemed to have nothing but super-vacuum between the ears.

I was sighing and feeling thankful that the one coming up was the last for the day when Bill Dolan sauntered in with a sheet of paper in his hands.

"Look at this, professor. It's a cinch for Tech. One of us is bound to walk off with the cat's cream. Open to all seniors of accredited institutions. That's us."

"Let me see that!"

I almost tore the paper from his grasp. This was the one thing I had been dreading all summer. Trying to turn out at least one batch of graduates that could at least take a ship from Earth to the Moon without cracking up. And now some cheap-skate, wildcat outfit was trying to get free publicity and break up my fall graduations.

The sheet was conservative and truthful enough in beginning.

Rocket lines throughout the system are vitally in need of expert pilots and astrogators. Into the hands of these men we place thousands of lives and millions of dollars' worth of property every year. There are not enough men of the right caliber to fill the vital posts of space navigation.

In an effort to discover more such men we make the following offer which we believe, because of its novelty and its demand for skill and daring, will attract the future acts of the void.

We propose a prize of fifty thousand dollars and a position of permanent nature which the company to the pilot who finishes first in our asteroid race.

The race consists simply of riding an asteroid from any approved starting point through the orbit of any shape about the Sun and back to the starting point—

"By all the little stars of space," I snapped, "what won't they think of next?"

Bill Dolan looked dismayed. "You don't—"

"No, I don't! And any Tech man who figures on monkeying with any fool idea of that kind can just forget about graduating!"

Bill looked hesitantly at the announcement, then smiled a little uncertainly. Just as the class bell rang he leaned down and whispered, "Just the same, professor, I'll bet you wish you were young enough to enter."

If he only knew! I looked wearily at the assembled men. Oh, it was good enough, trying to prepare men for the void. When that meteor collision had put me permanently out of commission, I felt that teaching what I had learned was the best way of serving the mushrooming science of space travel.

But it was still a hell of a job for the man who'd flown the *American Girl* on her maiden trip to Mars, who'd run her the last half million miles with empty fuel tanks and set her down without a bump.

After class I put a few rolls of microfilm in my pockets for some home study and hurried out. The old pain behind my eyes was coming back. I'd have to lie down soon.

Outside, all the class was still gaping at the bulletin board. I didn't have to ask what they were looking at.

"Come on, fellows, break it up!" I said.

They all turned. Jim Hawkins, the red-headed half of our football twins, wore a puzzled frown on his good-natured face.

"What do you mean, professor? It's a perfect



set-up for us. They furnish all the equipment, motors, safety monitors—"

"Just the same, no graduate of this year's astro-gation class is going to be in that cockeyed race."

"Is that final, professor?"

"Yes, that's final."

"I don't think the prexy will back you up."

"Aw, look here, fellows. Let's not get on opposite sides of the fence over this thing. I've seen these things before and know what they are—just a lot of cheap publicity—"

"The Ajax p-people aren't that k-kind."

I turned to stare at Sparky Bunting, a whiz on figures, but all weak on anything over three syllables. The Ajax Co.! That was a shock. I couldn't imagine conservative, cautious Jack Bevins having anything to do with wild publicity stunts.

"Did you say the Ajax people, Sparky?"

"Yes, Jack B-Bevens s-s-sent me these bulletins to post."

"Well, I hope you aren't going off your center of gravity over this thing, too, Sparky."

"S-sure. I'm going to win, t-too."

"Sure he's going out for it." Bill Donlon slapped a big hand on Sparky's shoulder. "The Asteroid Kid. That's you, eh, Sparky?"

"Now, look here, fellows—" I passed a hand over my eyes. Things were becoming blurry again.

"You might as well give in, professor," laughed George Hawkins. "We're all in it together. Bet a new sport-model cruiser you wish you could go, too."

That was the trouble. They knew I'd have given a leg to go on some goofy jaunt like that if I'd been twenty years younger and spry as when I first got a first-class pilot's license.

"I'll have a talk with Jack Bevins over the week end. We'll decide Monday after I know what this is all about."

The Ajax Co. isn't the largest in the system, but it's the safest, fastest and most efficient run—thanks to my old friend Jack Bevins.

That's why I couldn't figure out this so-called asteroid race. Bevins, as vice president in charge of general management, wasn't one to put up with such things.

I landed on the small, two-hundred-acre Ajax Field next day and inquired for Jack. He was busy in the office, but looked up with a grin when I walked in.

"You're late. Sit down. I expected you before this."

I sank down in one of his easy-chairs overlooking the broad field where the Mars express was just being rolled out.

"That shows you've got a plenty guilty conscience over this silly stunt you're sponsoring. What's the gag?"

"You know us," said Jack. "Have we ever pulled anything yet just for the sake of publicity?"

"That's why I can't figure it out. If it had been the Terrestrial Space Line or some other wildcat outfit, the picture would have made sense. What's the answer?"

"Pilots."

"Pilots? Great stars, man, there're over a thousand licensed, qualified pilots on Earth and Mars right now looking for jobs. We'll send out another fifteen in a couple of months."

"Licensed, but not qualified," corrected Jack. "If they were, we wouldn't have three flights absolutely grounded right now because we can't find men to fly them."

"Why, that's impossible. I never dreamed the situation was that bad. It isn't that way with all the lines, is it?"

Jack shrugged. "No, I believe we're the only company that isn't handling all the traffic it could take. If the rest of them can get the business, they take it up. But I wouldn't let more than three of their best pilots take one of our ships to the Moon and back."

"Their ships get through."

Again Jack shrugged. "Some of them. Last year twenty-three ships were lost in space. Only one of them was ours."

"It can't be helped," I said. "It's always been that way before machines reached perfection. Losses come from defects in design and manufacture, but the system thinks it's ready for space flight in spite of that."

"Exactly, but unless space transportation reaches a certain percentage of success it's committing suicide by persisting in failure. It nearly happened that way in the early history of air transportation. It's going to be the same here unless we stop it."

"But how are you going to stop it? Why was only one of those twenty-three losses yours?"

"I told you. Pilots. When you're short on machines, you've got to be long on men—a certain type of men. When space travel reaches the stage where air travel is now there'll be no more need of him. But, until then, only one breed of man is qualified to fly spaceships on regular runs."

"What type of man is that?"

"You should know," he smiled meaningfully. "You're—or, rather, you were—one of the last of them."

"Rubbish!" I snorted. "Why space transportation has moved light-years beyond me. New developments, new techniques, technical schools—"

"And you had to suffer through all the strain of cramming for your pilot's exam while you tended water sprays in the hell holes of the first atomics that made hit-and-miss trips between here and Venus. You had to figure courses on the little out-of-line integrators those ships carried. And usually they were so jammed up by the starting that you had to file the teeth of every gear in them to even figure the area of a square on them."

"Sure. The boys don't have to do that now. They learn course plotting on decent machines. They don't have to learn flying between watches in the engine rooms. They go to school."

Jack smashed a hand down on the top of the desk and shouted at me. "And that's exactly why you could fly a ship and these damn little bottled babies can't!"

"I suppose, then, I should quit my job and tell the boys to burn the school and get jobs on some decrepit freighters if they want to fly."

Jack had settled back in his chair again, but he grumbled, "It wouldn't be a half bad idea at that."

After a moment, he went on. "Bill, every type of locomotion from a baby's walking to space flight has gone through almost identical stages."

"The first one is the inventive stage. It is brief and flares up like a nova only once every few centuries. It brings together in one mind or a very few minds the genius, and the physical and intel-

lectual daring that are needed to blast away obsolete techniques and replace them with something for which there is no technique."

"Space flight is out of that stage," I reminded him.

"Unfortunately, yes. The surge of invention is gone, but after that comes the pioneering stage when men with skill and courage adapt the new inventions to new frontiers. It was that way with the wagon—which turned into the automobile, the ship, the airplane. And it's been that way with space flight."

"In the pioneering stage, men aren't sure of their machines, but they're willing to gamble what they can take from their own beings—skill, daring, courage—against the defects of their machines."

"That's the way it was with Columbus, Magellan, the American pioneers, Lindbergh, Byrd. It's the way it's always got to be."

"But space flight is beyond that! We're on regular schedules. We're beyond the stage of foolhardy idiots who'd try to fly between the Sun's prominence like . . . like me."

Jack started to say something, then stopped, but his glance at me was almost pitying. It made me feel uncomfortable.

"After this," he finally went on, "comes the leveling out, the deadening stage of technical development. Oh, I know—" He held up a hand against my protesting grunt. "I know this is essential if economic success is to result. But, nevertheless, in this last stage revolutionary inventions are suppressed, smothered out, and departures from established technique frowned upon. It is the era of schools to train men in those techniques—schools to train men to obey books of rules and to put fences around their thinking. There is no more room for the pioneer, until some genius flashes through with an invention that renders everything obsolete and clears the board again."

"Each stage is as definite as if it had walls, and the men of one would be helpless in the others. What would Columbus have done at the helm of a transatlantic liner powered with super-atomics that would take him across in three days?"

"He'd have been helpless, of course," I said. "Because advancing techniques have rendered him obsolete."

"And how would the captain of one of our liners have reacted to Columbus' suggestion that they sail the ocean for the first time in that tiny carack? What would your fine captain with all his technical training have done at the helm of a little three-hundred-ton wooden ship?"

"Why, he'd have had to learn a new technique to even sail it."

"Bah! You even reason like a college professor. You know damned good and well he'd have said

the scheme was harebrained and been one of the first to kick Columbus out of town. And why? Because he doesn't have the guts—intellectual or physical. Columbus was a pioneer. Your sea captain of today is a technician. Each belong in their place, but when one tries to take the other's command, Heaven help the crew and cargo."

"I still don't see how all this reasoning led up to the asteroid race."

"Like this," Jack snapped. "You and most of the rest of the public think space flight is in the technical stage. It isn't. It's right at that ticklish point of crossing from the pioneering stage to the technical. The next year will tell whether or not space flight is to leap ahead or be set back fifteen more years. It will progress if we can unearth the men."

"I still don't see what's the matter with the men we've got."

Jack was silent a moment, then he spoke abruptly. "Bill, you and I have been friends long enough for me to tell you what's wrong with you, haven't we?"

"Sure—"

"You've gone highhat."

"Highhat!"

"Maybe it's not quite the word, but it'll do. In front of your classes you're just a little ashamed of your early training, of the fact you got it in the holds of those early scows, instead of in some fancy school. You're just a whole lot ashamed of the fact that you had to get your job on the basis of that experience instead of on the basis of a flock of degrees tacked onto your name."

I know I must have turned a little pale. How could he have guessed the one thing that I had only sensed all these years—had not even been able to put into words myself. Yet I knew it was true.

"I guess you're right," I finally said.

"I'm afraid I am. But it's all so unnecessary, Bill. You had far better training than you've ever given any of the men in your classes out of the books and theories you've boned up on. You haven't even taught them the things you learned in those early days—things that still hold good in emergencies. You're trying to turn out technicians. We've got to have pioneers for twenty more years. In thirty years we can use the kind of men you're trying to give us, but not now."

"Your pretty little technicians crack up as soon as they come across something that isn't in the books. Hell, half the books haven't even been written yet!"

"This is kind of hard to take," I said slowly. "Space flight has been my lifeblood ever since I was a kid and watched some of the first rockets streaking through the night on the way to the Moon. What can I do?"

"Put every man of your class in our race. Bone them up, give them everything you ever learned—

and throw your books away. Give us the winners in our race!"

We looked at each other in silence as the sudden bursting roar of the Mars express outside flared up. The thunder of the mighty engines shook the walls of the room. I shook my head and Jack smiled at me. Intuitively, almost, we both knew that one of the sixteen tubes was off timing a bare thousandth of a second. It gave a little harmonic rise and fall to the thunder.

But it was swiftly brought into time and the ship took off. "We have a few pioneers left," said Jack. "Not one of your technicians could have caught that misfire."

"I'll see that you get some more pioneers," I said, and left him.

Every man in the class next day knew something was wrong. Jack's talk had truly shaken me—shaken me, I hoped, out of the calm repose I had drifted into through years of preparing technicians for white-collar space flying.

The class was uneasy. No one had dared ask about the race.

"What would happen," I said, suddenly, "if you found your ship three thousand miles from Ajax port and discovered you hadn't enough fuel for the landing?"

George Hawkins' red hair immediately shook and his hand went up. "It couldn't happen," he said. "Those matters are foolproof today. The fuel is calculated by means of Kipling's formula, safety margins are carried—"

"It has happened," I cut in.

He shifted uneasily. "Well—in that case, I guess you'd just be sunk."

So Jack Bevens was dissatisfied with the men I was sending him!

"Can't any of you men think of an answer?" I almost snarled. "You're going out of here trying to find jobs piloting space ships carrying hundreds of thousands of dollars and hundreds of lives. And you'd smugly rely on your precious Kipling formula and scuttle your whole ship and cargo in a puddle of tears because your tanks are empty. It's happened before—and can happen again—tanks as empty as your heads!"

The room was quiet, then an uneasy shuffle.

"I'm sorry, fellows," I said. "It's my fault. I've worn in a groove, taught you to rely on things that aren't so. The Kipling formula is only a guess, a bad attempt to standardize before ships are ready for standardization. Once in five hundred times it fails and another disaster clogs progress."

"The Ajar C-C-Co. d-doesn't use it."

I looked down at the rear of the class where gawky Sparky Bunting was quivering excitedly like a straining liner when its warm-up skips a beat.

"How do you know that, Sparky?"

"Jack B-Bevens told me. They vary it t-to meet conditions on each s-ship. And I know what I'd d-do in the c-c-case you mentioned."

The other men turned. Sparky was right so damned much it griped them, and so slow they were his friends, but I could see they expected him to make a fool of himself this time.

"I'd rip out the Pyrogen linings of eight of the t-tubes—t-twelve, if necessary—and f-feed them t-to the motors."

Somebody snickered. Bert Morrow, a perfect little technician from his head to his toes, raised a hand. "What in the world good would that do?"

"The amalgam would s-serve as f-fuel."

"What amalgam? You must've et something, Sparky."

Sparky flushed crimson and strode to the board. Swiftly he drew a maze of sketches and electronic equations. He took the rest of the class period explaining how the linings hoarded whole atoms of uranium in the vast spaces between the Pyrogen molecules—enough to land a ship or drive it a long way if the linings were old enough.

When he finished, George reared up. "You can't do it. The amalgam would be unsteady. You'd have to control the humidity spray by hand. No man could be expected to do that!"

I smiled a little. On the old scows of twenty years ago that had been a part of the regular routine because the automatics were so cranky. And then there'd been the *American Girl*. But no one except Jack Bevins knew about that.

"How about it, Sparky? Could it be done if a man had what it takes?"

"You t-tell us what happened t-to all the old t-tubes that were carried as s-spares on the *American G-Girl*."

He grinned at me.

Each man was to select his own asteroid. Any disputes were to be settled by going out and staking a claim.

With the millions of asteroids in the Solar System, there was little chance of two men picking the same one. But I might have expected Bert Morrow to be the one to raise the devil. He challenged George Hawkins' claim to 468. George was about to tell him to go take a mercury bath and let him have 468. It was no better than a dozen others nearby. But he caught my eye and I must have telepathed what I was thinking because he whirled on Bert.

"All right, you dirty little chiseler, come out and get it!"

George beat him there by four hours.

The rules stated that the asteroid could be no less than fifty feet in diameter. No more than four Desmond atomics could be mounted on it, feeding sixteen tubes.

The only requirement was to round the Sun and

return to the starting point. The only restrictions were those prescribed by safety. Minimum limits were put on food and fuel and personal equipment, and a maximum on fuel to prevent overloading. Otherwise, it was up to the private ingenuity of each man to make the best and fastest ship he could of his little world.

With the Ajax Co. pouring over a million dollars out for motors and equipment to be furnished free, it was little wonder over half the registered pilots on Earth and a score from Mars entered. There were six hundred and twenty in all.

Jack was a little worried over the Martians. "Damn! I hadn't counted on them. I sure hope none of those birds walk off with first place."

"Don't worry about that. They're so slow that even Sparky Bunting makes them look like anæmic glaciers."

"Sparky Bunting—he's entering, isn't he? He came in to see me several times after I announced the race. Seemed a little worried about the rules. He said they seemed ambiguous. I told him the ten best corporation lawyers of three planets drew them up."

I laughed. "Well, you can bet that if Sparky says they're ambiguous, they're ambiguous. Did he say any more?"

"No. Just that he thought he understood them all right, but he was afraid a lot of the other boys might get off the track."

"Good old Sparky. He'll argue his rating on the day of judgment. I wish we could keep him from entering, though. I'm afraid he'll get hurt."

"Well, he won't run into anybody, that's a cinch. Have you seen the asteroid he picked?"

I nodded. "The biggest one of the lot. A new one over two hundred feet in diameter. While the rest of the boys are chipping theirs down to the minimum limits, Sparky picks the biggest one he can find. And it's got the cockeyedest orbit—if any—that you ever saw. It's so far off the lanes that it hasn't been given a belt number, even."

"Oh, yes it has," grinned Jack. "I had it plotted when Sparky picked it. They've decided to put it in the thirteenth level. And its number there was 131312."

"One more and it'd have been kind of unlucky."

"You haven't heard what Sparky did to it?"

"No. What?"

"He cut it in two. That makes his half come out just right—131313."

I rode over to Sparky's isolated asteroid, vainly trying to figure out why he'd picked such a monster, then cut it in two.

The two halves were swinging erratically around each other about sixty million miles from the Sun, a little farther on the average than the rest of the asteroids chosen.

Sparky's little blue eyes were friendly and ex-

pectant as I set the magnetic grapple and climbed out of the cruiser on his hemispherical world. A wave of dizziness reminded me of the doctor's warning to stay out of space.

"Welcome to 131313," Sparky grinned. "S-s-some address, hey, p-professor?"

"O. K., if you're not fussy about numbers."

The curved side had been smoothed roughly and coated with a quarter inch of hard carbon. The flat side had a mirror-polished coating that could be seen for ten thousand miles in space. The dark side was laced with the welded bracing that Sparky had spread out to support his tubes, but the motors were not even installed, let alone adjusted and tested. He was way behind most of the others who were ready to start.

"How do you l-l-like it, p-professor?"

"Well—ah, it's a little unusual. Most of the others picked smaller asteroids and put the tubes around a circumference and parallel to their line of flight."

"No s-s-stability," Sparky snorted. "Come over here."

His inflated figure waddled away and disappeared over the sharp horizon of his miniature world. I followed to the middle of the rounded side where our magnetic soles held us flat against the domed surface.

"You c-can't p-push these asteroids. You have to p-pull them. I'm p-putting the t-tubes on this s-side ahead of the c-center of gravity. That's why I c-cut it in t-two—t-to s-shift the c-center of gravity farther back from the equator."

That was good. None of the others had thought of that. Of course, some of them had arranged their tubes in cockeyed patterns to try to get the most stable effect. One fellow who used to fly for Ajax even cut holes through the asteroid and put the head of the tubes near the nose of the asteroid, but at the cost of greatly weakening his small ball. Sparky had hit on the one most effective way of shifting centers, even though he still had four times the mass to propel that most of the others had. I could see the longer radius of

thrust would give him a more sensitive control in altering his orbit, however.

It was such a nice job that he was doing, yet I knew he'd never get away on time. He didn't have a chance to win. I thought I had a brilliant idea.

"It's a nice job, Sparky," I said, "but you'll have to step on it. They take off day after tomorrow and you'll never make it with all the work you have yet. Look, Sparky, why don't you go in with one of the other boys? Invite George Hawkins to help. The two of you would be a cinch to win, and there's no rule against pairs. Several of the fellows are doing it."

I was totally unprepared for the storm that broke. Sparky just looked at me for a long minute. He stood like a statue, his suit grotesquely bulging against the carbon void. The Sun glinted hard on the glass of his helmet as the asteroid turned over.

Abruptly he shouted at me. "Get off!"

"Sparky!"

"Get off! You're just l-like all the rest. You think I'm s-slow, t-too s-slow to c-catch c-cold. Well, I'll s-show you! I'll win, I t-tell you. I'll win!"

He went on more deliberately now. "S-sure, I know what all the reporters call me—the Asteroid Kid. S-slow S-Sparky, the Asteroid Kid. I'm mascot of the race. But I'll s-show you! Now get off!"

"Please, Sparky—"

"I thought you were my f-friend. But you're the s-same as the others. Leave me alone. I got work t-to d-do."

He turned and stumbled away, nearly crying with rage. There was nothing I could do but go back to the ship and take off. But of one thing I was certain: Sparky couldn't be allowed to enter the dangerous race in that frame of mind. Certainly no man in such emotional turmoil could ever become a pilot.

Jack Bevens had other ideas, as usual.

"Why kick him out?" he shrugged. "If you do,



it'll embitter him for life. If he loses, he may come back fighting, anyway."

"If he loses! Why the kid hasn't got a chance. He's so stirred up inside that he couldn't plot a curve across the street, let alone to the Sun and back."

"I wouldn't be too sure of that. Some of those old pioneers used to get hopping mad and go out and do something heroic before they cooled off."

"Pioneers!" I scoffed. "That hasn't got anything to do with Sparky's terrific inferiority complex."

"The Asteroid Kid might turn out to be the only pioneer in the lot. And that's the purpose of the race, to dig some up."

I threw up my hands. "Well, Heaven help your line if Sparky's the best you can find."

"I'm serious, Bob. What is a pioneer, anyway?"

"You're asking the riddles."

"He's nothing more than a dissatisfied man who doesn't fit where he is and who decides to find a new place where he does fit. Let's look at some of the boys out there. Bert Morrow, not much of a misfit, is he?"

"Hardly. Enough money to get along, a good place on the football squad, easygoing in company—and a technician."

"Right. A man to stick by the books. But he'll never make a go of it in space flight. He'd be a whiz of an airlines pilot, though. Why don't you tip him off?"

"Then take the Hawkins twins. Slow and steady, though hard hitting. The redhead likes to kick up a little fuss now and then, but flash a book of rules in his face and even he calms down. It's like that with all of them. I've studied every man entered in the race. Perfect technicians—but no pioneers."

"Except Sparky—he's the man who doesn't fit. Of course, a misfit isn't necessarily a pioneer. But if Sparky's got the rest of what it takes he's the only man we can afford to have win this race."

Jack Bevens was right about a lot of things, but I couldn't go with him that far.

"You're totally, absolutely and completely crazy," I told him before I walked out.

The race was creating more excitement on Earth than I had realized. The Tri-planet Network had arranged to cover the entire contest, sending news ships along to transmit continuous pictures of the race.

It was a holiday for the bookies. This was the first contest of any kind in recent years to attract bets since interest in football, boxing and horse-racing had become almost nonexistent.

Jack and I were waiting tensely in his office a few hours before the beginning of the race. News ships had been flashing shots of the Ajax plants, the asteroids and everything else in the system.

Now it was about time to go.

"Weeks of preparation are now complete and the zero hour of this thrilling, unprecedented race has arrived," the announcer gushed. "We flash you a few shots of the favorites just before starting time."

"Here is Gamor, the Martian, who says he doesn't care for the job offered, but is out for the cash to buy himself a nice funeral. Sentimental, these Martians. Good luck, Gamor."

"Here are the Hawkins twins who say that whichever wins, the prize money goes back to the folks at home who put them through school."

"And now, just a moment and we'll flash you the Asteroid Kid, who s-s-swears he's going t-t-to s-s-show you a thing or t-two. We give you Sparky Bunting."

Jack was grinding his teeth and swearing bitterly at the announcer as they flashed Sparky's ship on the screen. It showed the black, rounded side, but no Sparky. The ship went to the flat, silvered side and it was likewise barren.

"Well, something seems to be wrong, ladies and gentlemen; it looks as if the race mascot got cold feet and deserted his ship at the last minute. It's time to start, but no Sparky Bunting in sight."

"We're ready. The ten-second time signals are going out to the boys from the observatory now. Five seconds now, four, three, two, one— There they go!"

Space was lit for thousands of miles by flashes and pin points of light as hundreds of Desmond atomics came to life and the grotesque vehicles began accelerating in their orbits.

But Jack wasn't watching that. He was swearing violently, ending up with, "By all the little stars of space, what does that kid Sparky mean by walking out on us like this?"

In the dimness of the receiving room an unexpected voice came from near the door. "Are you s-s-speaking t-to me?"

"Sparky!"

I think that's as close as I ever saw Jack Bevens come to evaporating in a blue vapor.

"Great suns of space!" he bawled. "Why aren't you out there on your way?"

Sparky looked befuddled. "I d-didn't s-see anything in the rules that s-said we had to s-start at a certain time."

"No, but by definition the winner is the one who finishes in the shortest time. You haven't got a chance now."

"D-d-don't worry about me getting s-started. I won't be d-doing that for another three d-days."

For once Jack couldn't find words.

"Where I s-start from is where I got t-t-to c-come back t-to. In three more d-days the asteroid will be at the p-point easiest t-to return t-t-to."

"B-b-but what I c-came b-back f-for was t-to

ask if I c-could take a good s-supply of s-spares-tubes along. I f-figure I might need s-some."

"Sure—go out to the supply shed and get all you want. There's no regulation one way or the other on them, but get out and get going."

"Yes, s-sir. And I'll win. I'll s-s-show you!"

After five minutes I broke the silence that followed Sparky's leaving. "Well, that's that. You might as well jerk him out of the race now and keep him from getting hurt. His winning chances to forty-eight decimal places total zero."

Jack wasn't hearing me. He was scanning an asteroid chart on the wall and muttering to himself. "The place where you start from is the place you have to come back to. That kid's going to drive me crazy with the new angles he springs on this race. First, he bites off half an asteroid, and loads it down with spare tubes that he couldn't possibly have any use for, and then starts three days late."

The phone rang just as I was about to leave and Harry Jackson, supply foreman, appeared on the plate. "Say, Jack, this kid Sparky was just in here. He said you'd O. K.'d his taking up a supply of spare tubes. I told him to go ahead and load up while I went out for a few minutes. When I came back, he was just a sunbeam in the sky and two dozen old tubes we just ripped out of the Phobos are gone. If that kid can't tell old tubes from new, he oughta be grounded. But, anyway, you'd better catch hold of him. If he tries to use those tubes—"

"It's too much for me," Jack sighed and slammed the phone switch down. "I suppose you realize he's got just twice the fuel load that anyone else has, counting the amalgam in those old tubes. But I guess he just made a mistake."

"Mistake, nothing," I said. "He knows what that amalgam will do, and he's got it perfectly legally. You can't touch him."

"No, but I wonder what he's going to do with it."

"You'd better just drag him out before you find out."

We didn't try to communicate with Sparky during the next three days. In the meantime, blond George Hawkins had taken the lead and was tearing up space like a comet going to a fire. He had the little asteroid up to a flat ninety miles a second. Betting was heavy on him as he increased his lead, but to those who watched closely it looked as if he were trying to set a pace that would lead the others to burn up their fuel and force them to a wider orbit around the Sun, leaving the race to Jim who was creeping along at a bare forty miles a second, but was steadily accelerating. The leaders were laying their course to skin Mercury's orbit.

Jack was gnawing his knuckles over the fact that three of the Martians were lined up right be-

hind George Hawkins, but were taking a nice, easy, fuel-conserving pace. Bert Morrow was laying a long, conservative curve that wouldn't take him within five million miles of Mercury's orbit—that was the limit that space liner technicians were taught.

Jim Dolan was tailing the Martians and doing just what all the rest were—taking easy, safe orbits far from the Sun, carefully balancing fuel against weight—by Kipling's formula.

"You see, it's like I told you," Jack pointed out on the astroplate, a viewscreen of his own design which showed the positions and movements of heavenly bodies. The tiny lights that represented the racers crawled almost imperceptibly among the planets.

"Not a one of them showing any imagination about the whole thing. Look where Mercury will be when most of them get there. With just a little hook in their trajectories, they could dive deep in her orbit and let her attraction give them a neat free kick in the pants. And not a one of them headed that way."

"Dive into Mercury's orbit!" I exclaimed. "Man, what do you expect the kids to do? Fry themselves?"

"Have you forgotten when you used to try to play tag with the Sun's prominences? And, besides, more of them could have shown the sense that Sparky did in painting his asteroid black on one side and polishing the other to a mirror."

"And look at this. Instead of trying to do an ellipse about the Sun, how about doing a figure eight and taking advantage of—"

He suddenly broke off and turned white as a parabolic mirror in sunlight. "Great sons of space. That's what the kid— Bob, has he started yet?"

"A couple of hours ago. I heard on the newscast that he'd sent his time and position in to the timekeeper."

Jack put in a call to the nearest safety monitoring ship.

"Yes, the Asteroid Kid finally took off, and what a cockeyed curve he's running. You better pull him out and disqualify him before he kills himself."

"The crazy kid, instead of curving up over the asteroid field, he's smashing through the thick of them at nearly four gees. He'll bust a gut even if he don't hit another asteroid."

"Never mind that. Follow him and keep your eye on him."

"Follow? Not at that clip! Me, I learned how to fly—"

Jack turned back to the astroplate, then did some swift calculating with his slip stick and the almanac.

"The asteroid field's not very thick there at the worst. He'll be through it on a long slant if he holds to his course. I think in a few days you're

going to see an exhibition of plain and fancy Sun dodging that'd given you cold feet in the best of your days!"

The reporters thought Sparky's finally getting under way was a good joke. They spread headlines of "The Asteroid Kid Takes Off." Bookies began taking two-hundred-to-one shots on him. I even went out and put a five on him myself.

But the reporters began to laugh on the other side of their faces when Sparky put on the acceleration. Burning fuel recklessly and enduring a pressure of nearly five hundred pounds he tore straight into the Sun at an insane acceleration.

He had to let up after nearly a day, but he kept the acceleration up to two and a half gees without weakening. It was obvious that he was diving so far inside Mercury's orbit that dozens of pilots called Jack on their regular runs to ask if Sparky was out of control.

And for the first time people woke up to the fact that the race involved actual danger. It was astounding the way the change came about. Like a grotesque pet, Sparky changed overnight from an interstellar joke to the concern of the whole Solar System. The reporters that had laughed loudest began to demand that Jack stop him.

The other contestants were bewildered. They knew they'd be out of fuel before they were three-fourths of the way through if they tried to match that acceleration. When Sparky was up to a hundred and twenty miles per second he cut the acceleration to zero, but his direction was suicidal. He was heading for a solar bull's-eye.

The Public Opinion Council was not slow in sending a delegation to Jack.

"You've got to stop that boy!" the leader, a fat little man in his fifties, demanded.

Jack motioned the quartet of obviously retired busybodies into his office to sit down.

"Why must I stop him?"

"Because any fool can see that he's risking his life. And for what? Nothing but an insane race to accomplish exactly nothing!"

"That's what a lot of doddering old fogies said a long time ago about a young man who flew a flimsy little ship across the ocean the first time alone, and about a young woman who tried to fly around the world and lost her life because she gambled too much."

The pompous little man grew red in the face and started bouncing up and down in his chair.

"And that's where you belong! Back in the barbarous days of daredevil air flights. People like you should be penned up until you learn that this is a scientific age. What do you think progress is for if it isn't to deliver man from barbarism like that? We don't have to risk our lives like that any more; therefore, why should we do it?"

"To keep from growing old and fat and spongy

between the ears," said Jack slowly. "And now, if that's all, gentlemen, you may excuse yourselves."

They stormed out with threats that he'd hear of them again.

"You can't let the kid go on like this," I told Jack. "Regardless of what tricks he may have up his sleeve he can never pull out of that dive if he goes much farther. Why don't you send one of the safety ships after him while there's still time?"

"Why should I? If I forced him to leave the asteroid now, he'd succumb to the humiliation for the rest of his life. If he loses his life, it'll be a far happier end for him. In an age of contented cows like that herd that just left, he's a miserable misfit. I can't deny him the most fundamental of all a pioneer's rights—the right to risk his life to prove a point or discover a truth."

"You know what the public will do to you if that happens?"

"That isn't important."

Jack strolled over to the screen that showed the crawling asteroids.

"Sparky isn't headed for the Sun. He's got a couple of parsecs radius on his path that will carry him past the Sun. If he's figured his velocities and gravities right, his terrific speed will narrow his solar orbit and save twenty percent of the path the other boys are taking. In addition, he's going in the opposite direction they are, taking advantage of the motion of the Sun itself, which is an appreciable factor."

"Well, all I've got to say is it sure isn't in the books."

"But isn't it about the way you'd have done it fifteen or twenty years ago?"

Jack hadn't counted on the soaring public indignation that was giving us bad publicity.

As long as the public had thought of the race as merely a harmless lark to be watched and wagered on, they had no objections, but as soon as danger appeared, they began to squeal.

It was ample proof of Jack's thesis that we had become a world of technicians and pioneers were dead dodos. Travel had become so comfortable in even the remotest corners of the Earth that anything dangerous seemed atavistic. Actually, this reaction was no more than the expression of the fears and cowardice that had been bred by so many years of ease. We were in a sorry state mentally and physically.

Most of the people who stood around the screens waiting for news of Sparky were like the anxious mother who awaits her child coming down from a tree so she can spank the daylight out of him. But there was a healthy sign in the eyes of the few who watched with the admiration that expresses a vicarious thrill in the adventures of someone else.

They held their breaths as Sparky shot deeper and deeper into Mercury's orbit. Gradually, his

little pin point of a world was lost in the blinding aura of the Sun. The safety ship reported him invisible.

Few of the racers had lost a night's sleep. They could set their orbits with a reasonable degree of confidence and it wouldn't hurt if an accident did send them a million miles off course. But we knew Sparky must be having endless days and nights made tense with the delicate maneuvering about the Sun. We could only imagine the parching agony of the heat that seared even through the hundred feet of meteoric iron that was his protection while he swung about the star.

Jack had figured to the second when the safety ship should be able to spot the asteroid veering out of the brightness. The time came and passed. Jack nervously watched the screen and the hands of the clock, checked and rechecked his calculations. At last he called the ship.

"Can't you see him? Try the infrared cameras again. You ought to be able to get a shadow of him somewhere by now."

There was nothing at the end of four more hours. Jack littered the floor with sheets of paper on which were scribbled fantastic equations and impossible curves.

"You might as well face the only two possibilities," I said. "Either he miscalculated and was drawn into the Sun or has run out of fuel and formed a perpetual orbit. It's a million-to-one shot that he did form an orbit. But as long as there's the possibility, you've got to send a rescue—"

The crackle of the speaker interrupted. "Safety Monitor 28 calling Ajax—calling Jack Bevens."

Jack grabbed the phone. "Bevens. What is it?" "We've just sighted Asteroid 131313. Shall we pick him up?"

Jack's eyes lighted. "I knew he'd make it! Does he seem to be in trouble?"

"Yes, sir. He appeared almost thirty degrees farther around the Sun than we expected. He's now accelerating rapidly in a tangent from that point."

"Accelerating in a tangent from that point?" I bellowed. "Why the kid's either helpless or dead and the ship's out of control. He's crossing his own path and heading in the wrong direction!"

Jack looked wearily at the astroplate where Sparky's ship once more showed up. Over half the racers had rounded the Sun now and were on their way back to their starting positions among the planets. The lone point of light marking Sparky's ship was traveling nearly a hundred and seventy miles a second, according to the scale on the plate—nearly twice that of the nearest competitor. But Sparky was headed off at a broad angle that would take him millions of miles from his goal.

"Overhaul him!" ordered Jack at last.

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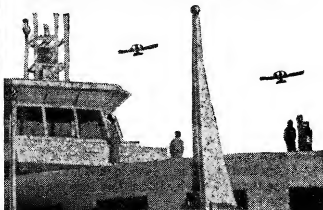
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I knew what that cost him. Gamor, the Martian, was far in the lead now, according to the checking stations who reported the actual miles covered against the relative starting points in order to get a true picture of the positions of the racers.

George Hawkins had run out of fuel as was expected, and Jim had been unable to maneuver around the Sun—for too many years we had been preaching to pilots to steer clear of the Sun.

The race had done nothing but stir up adverse public opinion in a world too comfortable to exert itself and which resented anyone who did. And Jack's hope of uncovering at least one pioneer had vanished.

But the job of overhauling the asteroid was no snap for the safety ship. Sparky was again adding the gees and had raised his velocity near the two-hundred-miles-a-second point.

Obviously, his regular fuel supply had long ago been exhausted. He must have been using the amalgam in the old tube linings.

That was the puzzling thing. Use of the unstable amalgam required constant, nerve-steady, manual control. And this went on for days before the safety ship even came within hailing distance. By this, it seemed impossible that Sparky could be dead or incapacitated.

It was maddening to see him going at that rate in the wrong direction when he could have out-distanced the whole field had he been heading for his goal.

An hour before the safety ship finally reached him, Sparky's asteroid spun half around on its own axis, tubes cut to the minimum, then slowly began to build up again. Sparky was decelerating.

Jack and I waited tensely while the captain of the safety ship closed in and boarded Sparky's asteroid. After an endless waiting, the captain's voice shouted, "Jack Bevens!"

"Talking."

"The kid's nearly dead. And it's turned his mind, too. He's clean loony. The first thing he said when he got out of his suit was, 'Well, I showed 'em. Where's the prize money? I won, didn't I?' The poor kid thinks he's won. What'll we do with him?"

I felt my heart sinking. Jack looked sick. This was worse than if Sparky had fallen into the Sun. "Can he talk to me?"

"I don't know. He can barely walk or stand."

But in a moment Sparky's face reeled into focus. I felt sick at the sight of him. His skin was burned raw from the intense solar radiation. Huge blisters formed bags of water on his hands and arms. Some had burst on his face and neck, leaving deep bleeding sores. His eyes were hollow-looking and bloodshot.

He spoke in a rasping voice. "Hello, Mr. Bevens. Hello, professor. Well, I said I'd win. I

showed you, didn't I?"

His lips made a pitiful effort at a smile. An arm went about his shoulders to keep him from falling, but he brushed it off and faced us again.

"I won, didn't I?"

There was something new and strange about his voice. Then I knew. His words came crisp and staccatolike.

"Sparky! You don't stutter any more."

"Not after hovering for days over the Sun, catching glimpses of flames leaping a hundred thousand miles into space, wondering if my speed was enough to keep me out of them. I stuttered because I was afraid. I'm not afraid of anything any more."

We stood looking at each other in silence for a long minute. Then Jack spoke.

"I'm afraid you didn't win, though, Sparky."

The kid paled under his burns. "Who was there first?"

"No one has won yet, but you aren't within twenty million miles of where you started."

"Not— But I am! I'll show you my curves. I couldn't have missed more than a thousand feet. I passed through my starting point a million miles back. I know I'm right. I corrected for everything—solar drift, galaxy drift and spin, the expansion and curvature of space. I had to win!"

Jack suddenly gave a sound like a strangling chicken. Sparky was holding up the sheet out of his automatic course recorder. And on it, instead of the figure eight open at one end, which we knew had been Sparky's course, his path showed as a nearly perfect ellipse.

Jack's figure stiffened and his face turned a little pale. Then his eyes glowed and he smashed a fist on the table.

"Great suns of space! No wonder you said the rules were ambiguous. Sparky! You've done it! You've won!"

Jack hunched over the board of the speedy cruiser nosing out to meet Sparky.

I was busy in the cabin with grizzled old Doc Barnes, a white-haired old cutthroat who'd remove a man's whole insides for nothing if he liked him.

"I think it's a phony myself. Gamor has already given intention of suing Ajax for fraud because the prize is going to Sparky. And a lot of others are going to do likewise, I'll bet."

"I can't help it," I said. "The rules are plain. The winner has to return to the starting point. Sparky is the only one fulfilling that requirement. The others are off by twenty to thirty million miles."

The doctor was getting red in the face. "But you just admitted that Sparky's path looks like a figure eight with a quarter of it cut away from one end. And yet you say he returned to the same place he started from—with the two ends of

the clipped figure eight twenty million miles apart!"

I loosened my collar and took up a fresh sheet of paper. "I said it just *looks* like a figure eight trimmed down on the end. Actually, it's an ellipse. It's a matter of point of view. The Sun is moving through space a little more than a million miles a day, carrying the planets and asteroids and everything else with it. Sparky picked a point of departure and return that was absolutely unmoving with respect to any reference points in the universe that we can determine.

"The Sun's drift through space was taking the whole Solar System away from that spot at the rate of a million miles a day. When Sparky went back to it after twenty days, it was no wonder he looked to be twenty million miles off his course, because all the rest of us were thinking in terms of the Solar System as a reference.

"Jack and all the lawyers who drew up the rules had in mind that the racers should return to the relative position in the Solar System from which they started. But read the rules yourself. They call for a return to the starting point. You can't get around that. Sparky's the only one who grasped the real meaning of it, and he tossed in a couple of corrections for space curvature and expansion just to make doubly sure he got back to the same spot.

"Looking at it from the solar point of view, Sparky crossed his path and made a clipped figure eight. Actually, he made an ellipse and the rest of them traveled in spirals."

"Yes, I see all that," grunted the doctor, "but how can an ellipse look like a figure eight trimmed on the end, and how can a spiral look like an ellipse from *any* point of view?"

Credit goes to Doc Barnes for patching Sparky together again. For a long time we were afraid he was going to die of the burns, but he came out better than new. He had found a place where he stood alone, at the top. It gave him confidence without cockiness. And his exploits revived an old form of paganism that had been dead for many years—hero-worship. He passed that test, too.

I was not surprised when he came around and told me that Jack had granted his request to take a ship to Pluto to test fuel consumptions on long hops.

He grinned when he told me about it. "I told Jack it was to test his fuel consumption formulas, but I guess the real reason is that I just wanted to go some place new."

"Sort of an unofficial pioneer for the company. Is that it?"

"That's funny. That's just the title Jack suggested. I guess it's the one that suits me. I don't fit here. Out there—I belong, and I'm happy."

THE END.

FEAR!
FEAR!
FEAR!



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AT ALL NEWSSTANDS

MEDUSA

By Theodore Sturgeon

● "You," said the headquarters men, "will be the only sane man in the crew. The rest are madmen but don't know it, of course—"

Illustrated by Edd Cartier

I wasn't sore at them. I didn't know what they'd done to me, exactly—I knew that some of it wasn't so nice, and that I'd probably never be the same again. But I was a volunteer, wasn't I? I'd asked for it. I'd signed a paper authorizing the department of commerce of the league to use me as they saw fit. When they pulled me out of the fleet for routine examinations, and when they started examinations that were definitely not routine, I didn't kick. When they asked for volunteers for a project they didn't bother to mention by name, I accepted it sight unseen. And now—

"How do you feel, Rip?" old Doc Renn wanted to know. He spoke to me easylike, with his chin on the backs of his hands and his elbows on the table. The greatest name in psychoscience, and he talks to me as if he were my old man. Right up there in front of the whole psycho board, too.

"Fine, sir," I said. I looked around. I know all the doctors and one or two of the visitors. All the medicos had done one job or another on me in the last three years. Boy, did they put me through the mill. I understood only a fraction of it all—the first color tests, for instance, and the electro-co-ordination routines. But that torture machine of Grenfell's, and that copper helmet that Winton made me wear for two months—talk about your nightmares! What they were doing to or for me was something I could only guess at. Maybe they were testing me for something. Maybe I was just a guinea pig. Maybe I was in training for something. It was no use asking, either. I volunteered, didn't I?

"Well, Rip," Doc Renn was saying, "it's all over now—the preliminaries, I mean. We're going ahead with the big job."

"Preliminaries?" I goggled. "You mean to tell me that what I've been through for the last three years was all preliminaries?"

Renn nodded, watching me carefully. "You're going on, a little trip. It may not be fun, but it'll be interesting."

"Trip? Where to?" This was good news; the repeated drills on spaceship techniques, the refresher courses on astrogation, had given me a good-sized itch to get out into the black again.

"Sealed orders," said Renn, rather sharply. "You'll find out. The important thing for you to remember is that you have a very important role to play." He paused; I could see him grimly ironing the snappiness out of his tone. Why in Canaan did he have to be so careful with me? "You will be put aboard a Forfield Super—the latest and best equipped that the league can furnish. Your job is to tend the control machinery, and to act as assistant astrogator no matter what happens. Without doubt you will find your position difficult at times. You are to obey your orders as given, without question, and without the use of force where possible."

This sounded screwy to me. "That's all written up, just about word for word, in the 'Naval Manual,'" I reminded him gently, "under 'Duties of Crew.' I've had to do all you said every time I took a ship out. Is there anything special about this one, that it calls for all this underlining?"

He was annoyed, and the board shuffled twenty-two pairs of feet. But his tone was still friendly, half persuasive when he spoke. "There is definitely something special about this ship, and—its crew. Rip, you've come through everything we could hand you, with flying colors. Frankly, you were subjected to psychic forces that were enough to drive a normal man quite mad. The rest of the crew—it is only fair to tell you—is insane. The nature of this expedition necessitates our manning the ship that way. Your place on the ship is a key position. Your responsibility is a great one."

"Now—hold on, sir," I said. "I'm not questioning your orders, sir, and I consider myself under your disposition. May I ask a few questions?"

He nodded.

"You say the crew is insane. Isn't that a broad way of putting it?"—I couldn't help needing him;



Rip looked at him uncomfortably. He was mad, of course—maybe— But why a shipful of madmen—?

he was trying so hard to keep calm—"for a psychologist?"

He actually grinned. "It is. To be more specific, they're schizoids—dual personalities. Their primary egos are paranoiac. They're perfectly rational except on the subject of their particular phobia—or mania, as the case may be. The recessive personality is a manic depressive."

Now, as I remembered it, most paranoiacs have delusions of grandeur coupled with a persecution mania. And a manic depressive is the "Yes master" type. They just didn't mix. I took the liberty of saying as much to one of Earth's foremost psychoscientists.

"Of course they don't mix," snapped Renn. "I didn't say they did. There's no interflowing of egos in these cases. They are schizoids. The cleavage is perfect."

I have a mole under my arm that I scratch when I'm thinking hard. I scratched it. "I didn't know anything like that existed," I said. Renn seemed bent on keeping this informal, and I was playing it to the limit. I sensed that this was the last chance I'd like to get any information about the expedition.

"There never were any cases like that until recently," said Renn patiently. "Those men came out of our laboratories."

"Oh. Sort of made-to-order insanity?"

He nodded.

"What on earth for, sir?"

"Sealed order," he said immediately. His manner became abrupt again. "You take off tomorrow." You'll be put aboard tonight. Your commanding officer is Captain William Parks." I grinned delightedly at this. Parks—the horny old fireater! They used to say of him that he could create sunspots by spitting straight up. But he was a real spaceman—through and through. "And don't forget, Rip," Renn finished. "There is only one sane man aboard that ship. That is all."

I saluted and left.

A Forfield Super is as sweet a ship as anything ever launched. There's none of your great noisy bulk pushed through the ether by a cityful of men, nor is it your completely automatic. "Eye-hope"—so called because after you slipped your master control tape into the automatic pilot you always said, "you're on your way, you little hunk of tinfoil—I hope!"

With an eight-man crew, a Forfield can outrun and outride anything else in space. No rockets—no celestial helices—no other such clumsy nonsense drives it. It doesn't go places by going—

it gets there by standing still. By which I mean that the ship achieves what laymen call "Universal stasis."

The Galaxy is traveling in an orbit about the mythical Dead Center at an almost incredible velocity. A Forfield, with momentum nullified, just stops dead while the Galaxy streams by. When the objective approaches, momentum is resumed, and the ship appears in normal space with only a couple of thousand miles to go. That is possible because the lack of motion builds up a potential in motion; motion, being a relative thing, produces a set of relative values.

Instead of using the terms "action" and "reaction" in speaking of the Forfield drive, we speak of "stasis" and "re-stasis." I'd explain further but I left my spherical slide rule home. Let me add only that a Forfield can achieve stasis in regard to planetary, solar, galactic or universal orbits. Mix 'em in the right proportions, and you get resultants that will take you anywhere, fast.

I was so busy from the instant I hit the deck that I didn't have time to think of all the angles of this more-than-peculiar trip. I had to check and double-check every control and instrument from the milliammeter to the huge compound integrators, and with a twenty-four-hour deadline that was no small task. I also had to take a little instruction from a league master mechanic who had installed a couple of gadgets which had been designed and tested at the last minute expressly for this trip. I paid little attention to what went on around me; I didn't even know the skipper was aboard until I rose from my knees before the integrators, swiveled around on my way to the control board, and all but knocked the old war horse off his feet.

"Rip! I'll be damned!" he howled. "Don't tell me—you're not signed on here?"

"Yup," I said. "Let go my hand, skipper—I got to be able to hold a pair of needle noses for another hour or so. Yeah, I heard you were going to captain this barrel. How do you like it?"

"Smooth," he said, looking around, then bringing his grin back to me. He only grinned twice a year because it hurt his face; but when he did, he did it all over. "What do you know about the trip?"

"Nothing except that we have sealed orders."

"Well, I'll bet there's some kind of a honkatunk at the end of the road," said Parks. "You and I've been on . . . how many is it? Six? Eight . . . anyway, we've been on plenty of ships together, and we managed to throw a whinging ashore every trip. I hope we can get out Aldeberan way. I hear Susie's place is under new management again. Heh! Remember the time we—"

I laughed. "Let's save it, skipper. I've got to finish this check-up, and fast. But, man, it's good to see you again." We stood looking at each other,

and then something popped into my head and I felt my smile washing off. What was it that Dr. Renn had said— "Remember there's only one sane man aboard!" Oh, no—they hadn't put Captain Parks through that! Why—

I said, "How do you—feel, cap'n?"

"Swell," he said. He frowned. "Why? You feel all right?"

Not right then, I didn't. Captain Parks batty? That was just a little bit lousy. If Renn was right—and he was always right—then his board had given Parks the works, as well as the rest of the crew. All but me, that is. I *knew* I wasn't crazy. I didn't feel crazy. "I feel fine," I said.

"Well, go ahead then," said Parks, and turned his back.

I went over to the control board, disconnected the power leads from the radioscope, and checked the dials. For maybe five minutes I felt the old boy's eyes drilling into the nape of my neck, but I was too upset to say anything more. It got very quiet in there. Small noises drifted into the control room from other parts of the ship. Finally I heard his shoulder brush the doorpost as he walked out.

How much did the captain know about this trip? Did he know that he had a bunch of graduates from the laughing academy to man his ship? I tried to picture Renn informing Parks that he was a paranoiac and a manic repressive, and I failed miserably. Parks would probably take a swing at the doctor. Aw, it just didn't make sense. It occurred to me that "making sense" was a criterion that we put too much faith into. What do you do when you run across something that isn't even supposed to make sense?

I slapped the casing back on the radioscope, connected the leads, and called it quits. The speaker over the forward post rasped out, "All hands report to control chamber!" I started, stuck my tools into their clips under the chart table, and headed for the door. Then I remembered I was already in the control room, and subsided against the bulkhead.

They straggled in. All hands were in the pink, well fed and eager. I nodded to three of them, shook hands with another. The skipper came in without looking at me—I rather thought he avoided my eyes. He went straight forward, faced about and put his hands low enough on the canted control board so he could sit on them. Seabiscuit, the quartermaster, and an old shipmate of mine, came and stood beside me. There was an embarrassed murmur of voices while we all awaited the last two stragglers.

Seabiscuit whispered to me, "I once said I'd sail clear to Hell if Bill Parks was cap'n of the ship."

I said, out of the side of my face, "So?"

"So it looks like I'm goin' to," said the 'Biscuit.

The captain called the roll. That crew was microscopically hand picked. I had heard every single one of the names he called in connection with some famous escapade or other. Harry Voight was our chemist. He is the man who kept two hundred passengers alive for a month with little more than a week's supply of air and water to work with, after the liner crossed bows with a meteorite on the Pleione run. Bort Brecht was the engineer, a man who could do three men's work with his artificial hand alone. He lost it in the *Pretoria* disaster. The gunner was Hoch McCoy, the guy who "invented" the bow and arrow and saved his life when he was marooned on an asteroid in the middle of a pack of poison-toothed "Jackrabbits." The mechanics were Phil and Jo Hartley, twins, whose resemblance enabled them to change places time and again during the Insurrection, thus running bales of vital information to the league high command.

"Report," he said to me.

"All's well in the control chamber, sir," I said formally.

"Brecht?"

"All's well back aft, sir."

"Quartermaster?"

"Stores all aboard and stashed away, sir," said the 'Biscuit.

Parks turned to the control board and threw a lever. The air locks slid shut, the thirty-second departure signal began to sound from the oscillator on the hull and from signals here and in the engineers' chamber. Parks raised his voice to be heard over their clamor.

"I don't know where we're goin'," he said, with an odd smile, "but"—the signals stopped, and that was deafening—"we're on our way!"

The master control he had thrown had accomplished all the details of taking off—artificial gravity, "solar" and "Planetary" stases, air pumps, humidifiers—everything. Except for the fact that there was suddenly no light streaming in through the portholes any more, there was no slightest change in sensation. Parks reached out and tore the seals off the tape slot on the integrators and from the door of the orders file. He opened the cubbyhole and drew out a thick envelope. There was something in my throat I couldn't swallow.

He tore it open and pulled out eight envelopes and a few folded sheets of paper. He glanced at the envelopes and, with raised eyebrows, handed them to me. I took them. There was one addressed to each member of the crew. At a nod from the skipper I distributed them. Parks unfolded his orders and looked at them.

"Orders," he read. "By authority of the Solar League, pertaining to destination and operations of Xantippean Expedition No. 1."

Startled glances were batted back and forth.

AST—6B

Xantippe! No one had ever been to Xantippe! The weird, cometary planet of Beteguense was, and had always been, taboo—and for good reason.

Parks' voice was tight. "Orders to be read to crew by the captain immediately upon taking off." The skipper went to the pilot chair, swiveled it, and sat down. The crew edged closer.

"The league congratulates itself on its choice of a crew for this most important mission. Out of twenty-seven hundred volunteers, these eight men survived the series of tests and conditioning exercises provided by the league.

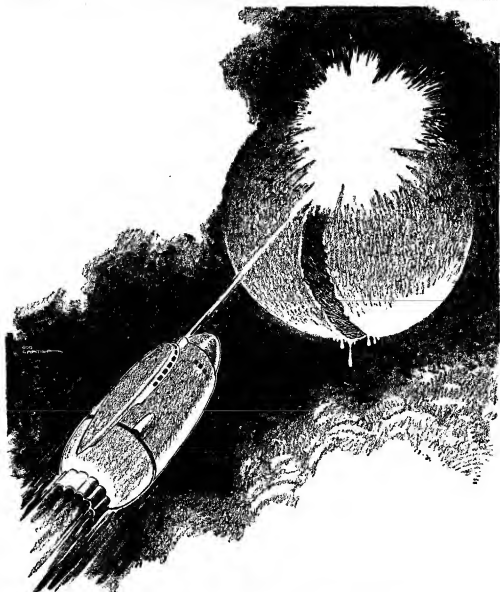
"General orders are to proceed to Xantippe. Captain and crew have been adequately protected against the field. Object of the expedition is to find the cause of the Xantippe Field and to remove it.

"Specific orders for each member of the crew are inclosed under separate sealed covers. The crew is ordered to read these instructions, to memorize them, and to destroy the orders and envelopes. The league desires that these orders be read in strictest secrecy by each member of the crew, and that the individual contents of the envelopes be held as confidential until contrary orders are issued by the league." Parks drew a deep breath and looked around at his crew.

They were a steady lot. There was evidence of excitement, of surprise, and in at least one case, of shock. But there was no fear. Predominantly, there was a kind of exultance in the spaceburned, hard-bitten faces. They bore a common glory, a common hatred. "That isn't sensible," I told myself. "It isn't natural, or normal, or sane, for eight men to face madness, years of it, with that joyous light in their eyes. But then—they're mad already, aren't they? *Aren't they?*"

It was catching, too. I began to hate Xantippe. Which was, I suppose, silly. Xantippe was a planet, of a sort. Xantippe never killed anybody. It drove men mad, that was all. More than mad—it fused their synapses, reduced them to quivering, mindless hulks, drooling, their useless minds turned supercargo in a useless body. Xantippe had snared ship upon ship in the old days; ships bound for the other planets of the great star. The mad planet used to blanket them in its mantle of vibrations, and they were never heard from again. It was years before the league discovered where the ships had gone, and then they sent patrols to investigate. They lost eighteen ships and thirty thousand men that way.

And then came the Forfield drive. In the kind of static hyperspace which these ships inhabited, surely they would pass the field unharmed. There were colonists out there on the other planets, depending on supplies from Sol. There were rich sources of radon, uranium, tantalum, copper. Surely a Forfield ship could—



The beam lanced out, and Medusa at last began to split—

But they couldn't. They were the first ships to penetrate the field, to come out on the other side. The ships were intact, but their crews could use their brains for absolutely nothing. Sure, I hated Xantippe. Crazy planet with its cometary orbit and its unpredictable complex ecliptic. Xantippe had an enormous plot afoot. It was stalking us—even now it was ready to pounce on us, take us all and drain our minds—

I shook myself and snapped out of it. I was dreaming myself into a case of the purple willies. If I couldn't keep my head on my shoulders aboard this spacegoing padded cell, then who would? Who else could?

The crew filed out, muttering. Parks sat on the pilot's chair, watching them, his bright gaze flitting from face to face. When they had gone he began to watch me. Not look at me. Watch me. It made me sore.

"Well?" he said after a time.

"Well *what*?" I barked, insubordinately.

"Aren't you going to read your bedtime story? I am."

"Bed—oh." I slit the envelope, unfolded my orders. The captain did likewise at the extreme opposite side of the chamber. I read:

"Orders by authority of the Solar League, pertaining to course of action to be taken by Harl Ripley, astromechanic on Xantippean Expedition No. 1.

"Said Harl Ripley shall follow the rules and regulations as set forth the naval regulations, up until such time as the ship engages the Xantippean Field. He is then to follow the orders of the master, except in case of the master's removal from active duty from some unexpected cause. Should such an emergency arise, the command does not necessarily revert to said Harl Ripley, but to the crew member who with the greatest practicability outlines a plan for the following objective: The expedition is to land on Xantippe; if uninhabited, the planet is to be searched until the source of the

field is found and destroyed. If inhabited, the procedure of the pro-tem commander must be dictated by events. He is to bear in mind, however, that the primary and only purpose of the expedition is to destroy the Xantippean Field."

That ended the orders; but scrawled across the foot of the page was an almost illegible addendum: "Remember your last board meeting, Rip. And good luck!" The penciled initials were C. Renn, M. Ps. S. That would be Doc Renn.

I was so puzzled that my ears began to buzz. The government had apparently spent a huge pile of money in training us and outfitting the expedition. And yet our orders were as hazy as they could possibly be. And what was the idea of giving separate orders to each crew member? And such orders! "The procedure of the pro-tem commander must be dictated by events." That's what you'd call putting us on our own! It wasn't like the crisp, detailed commands any navy man is used to. It was crazy.

Well, of course it was crazy, come to think of it. What else could you expect with this crew? I began to wish sincerely that the board had driven me nuts along with the rest of them.

I was at the chart table, coding up the hundred-hour log entry preparatory to slipping it into the printer, when I sensed someone behind me. The skipper, of course. He stayed there a long time, and I knew he was watching me.

I sat there until I couldn't stand it any longer. "Come on in," I said without moving. Nothing happened. I listened carefully until I could hear his careful breathing. It was short, swift. He was trying to breathe in a whisper. I began to be really edgy. I had a nasty suspicion that if I whirled I would be just in time to catch a bolt from a by-by gun.

Clenching my jaw till my teeth hurt, I rose slowly, and without looking around, went to the power-outpur telltales and looked at them. I didn't know what was the matter with me. I'd never been this way before—always expecting attack from somewhere. I used to be a pretty nice guy. As a matter of fact, I used to be the nicest guy I knew. I didn't feel that way any more.

Moving to the telltales took me another six or eight feet from the man at the door. Safer for both of us. And this way I had to turn around to get back to the table. I did. It wasn't the skipper. It was the chemist, Harry Voight. We were old shipmates, and I knew him well.

"Hello, Harry. Why the dark-companion act?"

He was tense. He was wearing a little mustache of perspiration on his upper lip. His peculiar eyes—the irises were as black as the pupils—were set so far back in his head that I couldn't see them, for the alleyway light was directly over his head. His bald, bulging forehead threw two

deep purple shadows, and out of them he watched me.

"Hi, Rip. Busy?"

"Not too busy. Put it in a chair."

He came in and sat down. He turned as he passed me, backed into the pilot's seat. I perched on the chart table. It looked casual, and it kept my weight on one foot. If I had to move in any direction, including up, I was ready to.

After a time he said, "What do you think of this, Rip?" His gesture took in the ship, Xantippe, the league, the board.

"I only work here," I quoted. That was the motto of the navy. Our insignia is the league symbol superimposed on a flaming sun, under which is an ultraradio screen showing the words, "I only work here." The famous phrase expresses the utmost in unquestioning, devoted duty.

Harry smiled a very sickly smile. If even I saw a man with something eating him, it was Harry Voight. "S'matter," I asked quietly. "Did somebody do you something?"

He looked furtively about him, edged closer. "Rip, I want to tell you something. Will you close the door?"

I started to refuse, and then reflected that regulations could stand a little relaxing in a coffin like this one. I went and pressed the panel, and it slid closed. "Make it snappy," I said. "If the skipper comes up here and finds that door closed he'll slap some wrists around here."

As soon as the door closed, Harry visibly slumped. "This is the first time in two days I've felt—comfortable," he said. He looked at me with sudden suspicion. "Rip—when we roomed together in Venus City, what color was that jacket I used to keep my 'Naval Manual' in?"

I frowned. I'd only seen the thing a couple of times—"Blue," I said.

"That's right." He wiped his forehead. "You're O. K." He made a couple of false starts and then said, "Rip, will you keep everything I say strictly to yourself? Nobody can be trusted here—nobody!" I nodded. "Well," he went on in a strained voice, "I know that this is a screwy trip. I know that the crew is—has been made—sort of—well, not normal—"

He said, with conviction, "The league has its own reason for sending us, and I don't question them. But something has gone wrong. You think Xantippe is going to get us? Ha! Xantippe is getting us now!" He sat back triumphantly.

"You don't say!"

"But I do! Yes, I know she's countless thousands of light years away. But I don't have to tell you of the power of Xantippe. For a gigantic power like that, a little project like what they're doing to us is nothing. Any force that can throw out a field three quarters of a billion miles in

diameter can play hell with us at a far greater distance."

"Could be," I said. "Just what are they doing?" "They're studying us," he hissed. "They're watching each of us, our every action, our every mental reflex. And one by one they are—taking us away! They've got the Hartley twins, and Bort Brecht, and soon they'll have me. I don't know about the others, but their turns will come. They are taking away our personalities, and substituting their own. I tell you, those three men—and soon now, I with them—those men are not humans, but Xantippeans!"

"Now wait," I said patiently. "Aren't you going on guesswork? Nobody knows if Xantippe's inhabited. And I doubt that this substitution you speak of can be done."

"You don't think so? For pity's sakes, Rip—for your own good, try to believe me! The Xantippean Field is a thought force, isn't it? And listen—I know it if you don't—this crew was picked for its hatred of Xantippe. Don't you see why? The board expects that hatred to act as a mental 'fender'—to partly ward off the field. They think they might be enough left of our minds when we're inside the field to accomplish our objective. They're wrong, Rip—*wrong!* The very existence of our communal hatred is the thing that has given us away. They have been ready for us for days now—and they are already doing their work aboard."

He subsided, and I prodded him with gentle questions.

"How do you know the Xantippeans have taken away those three men?"

"Because I happened to overhear the Hartley twins talking in the messroom two days ago. They were talking about their orders. I know I should not have listened, but I was already suspicious."

"They were talking about their orders? I understood that the orders were confidential."

"They were. But you can't expect the Hartleys to pay much attention to that. They're closer together than two of your teeth. Anyway, Jo confided that a footnote on his orders had intimated that there was only one sane man aboard. Phil laughed that off. He said he knew he was sane, and he knew that Jo was sane. Now, I reason this way. Only a crazy man would question the league; a crazy man or an enemy. Now the Hartleys may be unbalanced, but they are still rational. They are still navy men. Therefore, they must be enemies, because navy men never question the league."

I listened to that vague logic spoken in that intense, convincing voice, and I didn't know what to think. "What about Bort Brecht—and yourself?"

"Bort! Ahh!" His lips curled. "I can sense an alien ego when I speak to him. It's overwhelm-

ing. I hate Xantippe," he said wildly, "but I hate Bort Brecht more! The only thing I could possibly hate more than Xantippe would be an Xantippean. That proves my point!" He spread his hands. "As for me—Rip, I'm going mad. I feel it. I see things—and when I do, I will be another of them. And then we will all be lost. For there is only one sane man aboard this ship, and that is me, and when I'm turned into a Xantippean, we will be doomed, and I want you to kill me!" He was half hysterical. I let him simmer down.

"And do I look crazy?" I asked. "If you are the only sane man—"

"Not crazy," he said quickly. "A schizoid—but you're perfectly rational. You must be, or you wouldn't have remembered what color my book jacket was."

I got up, reached out a hand to help him to his feet. He drew back. "Don't touch me!" he screamed, and when I recoiled, he tried to smile. "I'm sorry, Rip, but I can't be sure about anything. You may be an Xantippean by now, and touching me might . . . I'll be going now . . . I—" He went out, his black, burning eyes half closed.

I stood at the door watching him weave down the alleyway. I could guess what was the matter. Paranoia—but bad! There was the characteristic persecution mania, the intensity of expression, the peculiar single-track logic—even delusions of grandeur. Heh! He thought *he* was the one mentally balanced man aboard!

I walked back to the chart table, thinking hard. Harry always had been pretty tight-lipped. He probably wouldn't spread any panic aboard. But I'd better tip the captain off. I was wondering why the Hartley twins and Harry Voight had all been told that all hands but me were batty, when the skipper walked in.

"Rip," he said without preamble. "Did you ever have a fight with Hoch McCoy?"

"Good gosh, no!" I said. "I never saw him in my life until the day we sailed. I've heard of him, of course. Why?"

Parks looked at me oddly. "He just left my quarters. He had the most long-winded and detailed song and dance about how you were well known as an intersolar master saboteur. Gave names and dates. The names I know well. But the dates—well, I can alibi you for half of 'em. I didn't tell him that. But—Lord! He almost had me convinced!"

"Another one!" I breathed. And then I told him about Harry Voight.

"I don't imagine Doc Renn thought they would begin to break so soon," said Parks when I had finished. "These boys were under laboratory conditions for three solid years, you know."

"I didn't know," I said. "I don't know a damn thing that's going on around here and I'd better

learn something before I go off my kilter, too."

"Why, Ripley," he said mockingly. "You're overwrought!" Well, I was. Parks said, "I don't know much more than you do, but that goofy story of Harry Voight's has a couple of pretty shrewd guesses in it. For instance, I think he was right in assuming that the board had done something to the minds of . . . ah . . . some of the crew as armor against the field. Few men have approached it consciously—those who have were usually scared half to death. It's well known that fear forms the easiest possible entrance for the thing feared—ask any good hypnotist. Hate is something different again. Hate is a psychological bloc against fear and the thing to be feared. And the kind of hate that these guys have for Xantippe and the field is something extra special. They're mad, but they're not afraid—and that's no accident. When we do hit the field, it's bound to have less effect on us than it had on the crews of poor devils who tried to attack it."

"That sounds reasonable. Er . . . skipper, about this 'one sane man' business. What do you think of that?"

"More armor," said Parks. "But armor against the man himself. Harry, for instance, was made a paranoiac, which is a very sensible kind of nut; but at the same time he was convinced that he alone was sane. If he thought his mind had been actually tampered with instead of just—tested, he'd get all upset about it and, like as not, undo half the Psy Board's work."

Some of that struck some frightening chords in my memory. "Cap'n—do you believe that there is one sane, normal man aboard?"

"I do. One." He smiled slowly. "I know what you're thinking. You'd give anything to compare your orders with mine, wouldn't you?"

"I would. But I won't do it. Confidential. I couldn't let myself do it even if you agreed, because—" I paused.

"Well?"

"Because you're an officer and I'm a gentleman."

In my bunk at last, I gave over wishing that we'd get to the field and have it over with, and tried to do some constructive thinking. I tried to remember exactly what Doc Renn had said, and when I did, I was sorry I'd made the effort. "You are sane," and "You have been subjected to psychic forces that are sufficient to drive a normal man quite mad" might easily be totally different things. I'd been cocky enough to assume that they meant the same thing. Well, face it. Was I crazy? I didn't feel crazy. Neither did Harry Voight. He thought he was going crazy, but he was sure he hadn't got there yet. And what was "crazy," anyway? It was normal, on this ship, to hate Xantippe so much that you felt sick and sweated cold when you thought of it. Paranoia—persecution.



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Did I feel persecuted? Only by the thought of our duty toward Xantippe, and the persecution was Xantippe, not the duty. Did I have delusions of grandeur? Of course not; and yet—hadn't I blandly assumed that Voight had such delusions because he thought *he* was the one sane man aboard?

What was the idea of that, anyway? Why had the board put one sane man aboard—if it had? Perhaps to be sure that one man reacted differently to the others at the field, so that he could command. Perhaps merely to make each man feel that he was sane, even though he wasn't. My poor, tired brains gave it up and I slept.

We had two casualties before we reached the field. Harry Voight cut his throat in the washroom, and my gentle old buddy, Seabiscuit, crushed in the back of Hoch McCoy's head. "He was an Insurrectionist spy," he insisted mildly, time and again, while we were locking him up.

After that we kept away from each other. I don't think I spoke ten words to anyone outside of official business, from that day until we snapped into galactic stasis near Betelgeuse. I was sorry about Hoch, because he was a fine lad. But my sorrow was tempered by the memory of his visit to the captain. There had been a pretty fine chance of his doing that to me!

In normal space once more, we maneuvered our agile little craft into an orbit about the huge sun and threw out our detectors. These wouldn't tell us much when the time came, for their range wasn't much more than the radius of the field.

The mad planet swam up onto the plates and I stared at it as I buzzed for the skipper. Xantippe was a strangely dull planet, even this close to its star. She shone dead silver, like a moonlit corpse's flesh. She was wrinkled and patched, and—perhaps it was an etheric disturbance—she seemed to pulsate slowly from pole to pole. She wasn't quite round; more nearly an ovoid, with the smaller end toward Betelgeuse! She was between two and three times the size of Luna. Gazing at her, I thought of the thousands of men of my own service who had fallen prey to her, and of the fine ships of war that had plunged into the field and disappeared. Had they crashed? Had they been tucked into some weird warp of space? Were they captives of some strange and horrible race?

Xantippe had defied every type of attack so far. She swallowed up atomic mines and torpedoes with no appreciable effect. She was apparently impervious to any rayed vibration known to man; but she was matter, and should be easy meat for an infragun—if you could get an infragun close enough. The gun's twin streams of highly charged particles, positrons on one side, mesatrons on the other, would destroy anything that happened to be where they converged. But an infra-

gun has an effective range of less than five hundred miles. Heretofore, any ship which carried the weapon that close to Xantippe carried also a dead or mindless crew.

Captain Parks called the crew into the control room as soon as he arrived. No one spoke much; they didn't need any more information after they had glanced at the viewplate which formed the forward wall of the chamber. Bort Brecht, the swarthy engineer, wanted to know how soon we'd engage the field.

"In about two hours," said the captain glibly. I got a two-handed grip on myself to keep from yapping. He was a cold-blooded liar—we'd hit it in half an hour or less, the way I figured it. I guessed that he had his own reasons. Perhaps he thought it would be easier on the crew that way.

Parks leaned casually against the integrators and faced the crew. "Well, gentlemen," he said as if he were banqueting on Earth, "we'll soon find out what this is all about. I have instructions from the league to place certain information at your disposal.

"All hands are cautioned to obey the obvious commander once we're inside the field. That commander may or may not be myself. That has been arranged for. Each man must keep in mind the objective—the destruction of the Xantippean Field. One of us will lead the others toward the objective. Should no one seem to be in command, a pro-tem captain is to be elected."

Brecht spoke up. "Cap'n, how do we know that this 'commander' that has been arranged for isn't Harry Voight or Hoch McCoy?"

"We don't know," said Parks gravely. "But we will. We will."

Twenty-three minutes after Xantippe showed up on the plates, we engaged her field.

All hands were still in the control room when we plunged in. I remember the sudden weakness of my limbs, and the way all five of the others slipped and slid down to the deck. I remember the 'Biscuit's quaver, "I tell you it's all a dirty Insurrectionist plot." And then I was down on the deck, too.

Something was hurting me, but I knew exactly where I was. I was under Dr. Grenfell's torture machine; it was tearing into my mind, chilling my brain. I could feel my brains, every last convolution of them. They were getting colder and colder, and bigger and bigger, and pretty soon now they would burst my skull and the laboratory and the building and chill the earth. Inside my chest I was hot, and of course I knew why. I was Betelgeuse, mightiest of suns, and with my own warmth I warmed half a galaxy. Soon I would destroy it, too, and that would be nice.

All the darkness in Great Space came to me.

Leave me alone. I don't care what you want

done. I just want to lie here and— But nobody wanted me to do anything. What's all the hollering about, then? Oh. I wanted something done. There's something that has to be done, so get up, get up, get—

"He is dead. Death is but a sleep and a forgetting, and he's asleep, and he's forgotten everything, so he must be dead!" It was Phil Hartley. He was down on his hunkers beside me, shrieking at the top of his voice, mouthing and pointing like an ape completely caught up in the violence of his argument. Which was odd, because he wasn't arguing with anybody. The skipper was sitting silently in the pilot's chair, tears streaming down his cheeks. Jo Hartley was dead or passed out on the deck. The 'Biscuit and Bort Brecht were sitting on the deck holding hands like children, staring entranced into the viewplate. It showed a quadrant of Xantippe, filling the screen. The planet's surface did indeed pulsate, and it was a beautiful sight. I wanted to watch it drawing closer and closer, but there was something that had to be done first.

I sat up achingly. "Get me some water," I muttered to Phil Hartley. He looked at me, shrieked, and went and hid under the chart table.

The vision of Xantippe caught and held me again, but I shook it off. It was the most desirable thing I'd ever seen, and it promised me all I could ever want, but there was something I had to do first. Maybe someone could tell me. I shook the skipper's shoulder.

"Go away," he said. I shook him again. He made no response. Fury snapped into my brain. I cuffed him with my open hand, front and back, front and back. He leaped to his feet, screamed, "Leave me alone!" and slumped back into the chair. At the sound Bort Brecht lurched to his feet and came over to us. When he let go Seabiscuit's hand, the 'Biscuit began to cry quietly.

"I'm giving the orders around here," Bort said. I was delighted. There had been something, a long time ago, about somebody giving orders. "I have to do something," I said. "Do you know what it is?"

"Come with me." He led the way, swaggering, to the screen. "Look," he commanded, and then sat down beside Seabiscuit and lost himself in contemplation. Seabiscuit kept on crying.

"That's not it," I said doubtfully. "I think you gave me the wrong orders."

"Wrong?" he bellowed. "Wrong? I am never wrong!" He got up, and before I knew what was coming, he hauled off and cracked three knuckles with my jawbone. I hit the deck with a crash and slid up against Jo Hartley. Jo didn't move. He was alive, but he just didn't seem to give a damn. I lay there for a long time before I could get up again. I wanted to kill Bort Brecht, but there was something I had to do first.

I went back to the captain and butted him out of the chair. He snarled at me and went and crouched by the bulkhead, tears still streaming down his cheeks. I slumped into the seat, my fingers wandering idly about the controls without touching them, my eyes desperately trying to avoid the glory of Xantippe.

It seemed to me that I was very near to the thing I was to do. My right hand touched the infragun activator switch, came away, went back to it, came away. I boldly threw another switch; a network of crosshairs and a bright central circle appeared on the screen. This was it, I thought. Bort Brecht yelped like a kicked dog when the crosshairs appeared, but did not move. I activated the gun, and grasped the range lever in one hand and the elevation control in the other. A black-centered ball of flame hovered near the surface of the planet.

This was it! I laughed exultantly and pushed the range lever forward. The ball plunged into the dull-silver mystery, leaving a great blank crater. I pulled and pushed at the elevation control, knowing that my lovely little ball was burning and tearing its inexorable way about in the planet's vitals. I drew it out to the surface, lashed it up and down and right and left, cut and slashed and tore.

Bort Brecht was crouched like an anthropoid,

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knees bent, knuckles on the deck, fury knotting his features, eyes fixed on the scene of destruction. Behind me Phil Hartley was teetering on tiptoe, little cries of pain struggling out of his lips every time the fireball appeared. Bort spun and was beside me in one great leap. "What's happening? Who's doing that?"

"He is," I said immediately, pointing at Jo Hartley. I knew that this was going to be tough on Jo, but I was doing the thing I had to do, and I knew Bort would try to stop me. Bort leaped on the prone figure, using teeth and nails and fists and feet; and Phil Hartley hesitated only a minute, torn between the vision of Xantippe and something that called to him from what seemed a long, long while ago. Then Jo cried out in agony, and Phil, a human prototype of my fireball, struck Bort amidships. Back and forth, fore and aft, the bloody battle raged, while Seabiscuit whimpered and the skipper, still sunk in his introspective trance, wept silently. And I cut and stabbed and ripped at Xantippe.

I took care now, and cut a long slash almost from pole to pole; and the edges opened away from the wound as if the planet had been wrapped in a paper sheath. Underneath it was an olive-drab color, shot with scarlet. I cut at this incision again and again, sinking my fireball in deeper at each slash. The weakened ovoid tended to press the edges together, but the irresistible ball sheared them away as it passed; and when it had cut nearly all the way through, the whole structure fell in on itself horribly. I had a sudden feeling of lightness, and then unbearable agony. I remember stretching back and back over the chair in the throes of some tremendous attack from inside my body, and then I struck the deck with my head and shoulders, and I was all by myself again in the beautiful black.

There was a succession of lights that hurt, and soothing smells, and the sound of arcs and the sound of falling water. Some of them were weeks apart, some seconds. Sometimes I was conscious and could see people tiptoeing about. Once I thought I heard music.

But at last I awoke quietly, very weak, to a hand on my shoulder. I looked up. It was Dr. Renn. He looked older.

"How do you feel, Rip?"

"Hungry."

He laughed. "That's splendid. Know where you are?"

I shook my head, marveling that it didn't hurt me.

"Earth," he said. "Psy hospital. You've been through the mill, son."

"What happened?"

"Plenty. We got the whole story from the picrecording tapes inside and outside of your ship. You cut Xantippe all to pieces. You incidentally got Bort Brecht started on the Hartley family, which later literally cut *him* to pieces. It cost three lives, but Xantippe is through."

"Then—I destroyed the projector, or whatever it was—"

"You destroyed Xantippe. You—killed Xantippe. The planet was a . . . a thing that I hardly dare think about. You ever see a hydromedusa here on Earth?"

"You mean one of those jellyfish that floats on the surface of the sea and dangles paralyzing tentacles down to catch fish?"

"That's it. Like a Portuguese man-of-war. Well, that was Xantippe, with that strange mind field about her for her tentacles. A space dweller; she swept up anything that came her way, killed what was killable, digested what was digestible to her. Examination of the pictures, incidentally, shows that she was all set to hurl out a great cloud of spores. One more revolution about Betelgeuse and she'd have done it."

"How come I went under like that?" I was beginning to remember.

"You weren't as well protected as the others. You see, when we trained that crew we carefully split the personalities; paranoiac hatred to carry them through the field, and an instant reversion to manic depressive under the influence of the field. But yours was the only personality we couldn't split. So you were the leader—you were delegated to do the job. All we could do to you was to implant a desire to destroy Xantippe. You did the rest. But when the psychic weight of the field was lifted from you, your mind collapsed. We had a sweet job rebuilding it, too, let me tell you!"

"Why all that business about the 'one sane men'?"

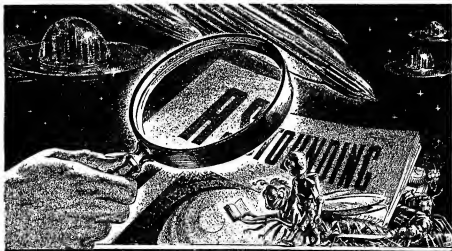
Renn grinned. "That was to keep the rest of the crew fairly sure of themselves, and to keep you from the temptation of taking over before you reached the field, knowing that the rest, including the captain, were not responsible for their actions."

"What about the others, after the field disappeared?"

"They reverted to something like normal. Not quite, though. The quartermaster tied up the rest of the crew just before they reached Earth and handed them over to us as Insurrectionist spies!

"But as for you, there's a command waiting for you if you want it."

"I want it," I said. He clapped me on the shoulder and left. Then they brought me a man-sized dinner.



BRASS TACKS

Ouch.

Dear Mr. Campbell:

How can you dare to print the drivel that is the work of Dr. Smith in a top-flight magazine such as yours? Not that his writing is so bad—personally I think it is surpassed only by Heinlein—but his plots—or should I say his *plot*—can surpass only those of the opera, which is rather a left-handed compliment, I think.

Some authors at least vary their formulas a trifle. Van Vogt and his monster mania parted company, and "Slan" was the result. But Smith does not even do that. Time after time, we are presented with those li'l' old intergalactic invaders, who are finally beaten off, not by brute force, superior strategy, or scientific achievement, but by that old reliable, ever-present mind force plus, of course, X-ray vision.

And the hero never can die, or be maimed, or, in fact, injured in any way, for his trusty stooges arrive in the nick of time to replace a loose eyeball here and there, fill his tank, check his oil, wipe his windshield, and send him off, not only as good as ever, but better, with fluid drive and extra springs in the back seat.

Those Arisian supermen, of whom so much is thought, could only have been invented by Dr. Smith after a heavy midnight supper. Are you forced to accept them, or are you hypnotized? While re-reading Anson MacDonald's "Solution Unsatisfactory," I permitted myself a merry little chuckle at the Editor's note appended thereto.

"—Dr. E. E. Smith recognized a similar problem in the formation of any all-powerful law-enforcing body such as his Galactic Patrol. Who will watch the watchmen? Smith's solution was complete and workable—the Arisian supermen."

My solution is also complete and workable. Who will watch the watchmen? Simple, Dr. Smith will.

Smith, to me, represents the last of a valiant but doomed race—the writers of the Buck Rogers-Flash Gordon school. The time is fast disappearing—at least in the better science-fiction magazines—when the author, in a difficult situation, can, "—turn to his micro-ultra-philimeter, he rapidly tore out a dozen connections, spot-welded twenty-seven busbars, and converted the machine into an improved von Krockmeier hyperspace lever, which bent space like the blade of a rapier and hurtled him in a flash from hilt to point—" My apologies to Theodore Sturgeon for that quote.

There may be a climax in a Smith story, but there can be no suspense, unless it be in waiting for the hero to come up with a new weapon, or physical attribute.

However, Arisians or no Arisians, Kinnison or no Kinnison, the man is a master craftsman, with or without "busbars." He can spew a wonderful adjective when he gets warmed up. But, oh, we need someone to doctor up those plots! Is there one in the house?

We leave Dr. Smith a bloody, battered hulk, lying in the dust of his ignominy, to travel on to other topics.

My typewriter ribbon being what it is, we will treat but little with the other scriveners. Suffice it to say that my favorites are Heinlein, MacDonald, de Camp, Van Vogt and Asimov, and let my pet hates lie where they fell.

The cover paintings are as uniformly excellent as the interior illustrations are erratic. Jack Binder, for instance, whom I have always affectionately regarded as the artist without a peer in his ability to botch a drawing, came up with the best bit of interior work I have ever seen, in *any* magazine—his illustration for "Castaway," in your February, 1941, issue. Schneeman ran him a close second, however, with his work on Robert Wil-

ley's "Fog."—Sam Salant, 1919 Eighty-first Street, Brooklyn, New York.

Like it now you've seen it?

Dear Mr. Campbell:

As you may—but probably do not—remember, I sent you a card a couple of months back, extending my thanks and congratulations on the new large format of *Unknown Worlds*. I now wish to express a similar sentiment in regard to the large-sized ASF; Unger's *Fantasy Fiction Field* arrived this morning with the good news emblazoned on the front page; I nearly dropped from the shock. For seven years—i. e., ever since I started reading *Astounding*—I've waited for this joyous day. At last *Astounding* will be where it belongs—with the quality magazines.

Of course, the large size has its disadvantages, as irate and over-finishy collectors will no doubt inform you—but, ah, the beauty and the dignity of it!

In any event, thanks a million, and best of luck with the new format. I hope you can get enough good material to fill the larger magazine!

Before I close I want to take this opportunity to give you belated thanks for "The Land of Unreason" in the October *Unknown*; it was simply magnificent—Paul H. Spencer, 259 Yale Station, New Haven, Connecticut.

Looks like a straight best-of-the-year vote for "Methuselah's Children."

Dear Mr. Campbell:

This letter is going to be quite long as I'm going to give you a list of the bests in *Astounding* for 1941. First, I'll start off rating the ten best stories:

1. "Methuselah's Children"—Robert Heinlein. My choice as the best science-fiction story of the year, not only among the yarns in *Astounding* but in every other stf mag. More power to Bob Heinlein, and let's have another serial by him.

2. "The Microcosmic God"—Theodore Sturgeon. Boy, oh, boy, what a neat yarn. If Sturgeon never writes another word he's earned his place in science-fiction's hall of fame by this piece of work. It even outranks de Camp's and MacDonald's serials.

3. "The Stolen Dormouse"—L. Sprague de Camp. A swell story, although it doesn't quite measure up to the same author's "Divide and Rule." Why didn't de Camp enlarge on the plot and make the story longer?

4. "Nightfall"—Isaac Asimov. This was a superb piece of work. My only complaint was the length. More power to Asimov.

5. "Sixth Column"—Anson MacDonald. For his first serial in *Astounding*, MacDonald turned

out a fine invasion story that was far off the beaten track.

6. "Logic of Empire"—Robert Heinlein. What, Heinlein again? Don't lose this writer—he's one of your finest.

7. "Universe"—Robert Heinlein. This list is beginning to read: "The best stories by Robert Heinlein." A slick writer with a slick yarn.

8. "Jurisdiction"—Nat Schachner. To many, this story probably was just another space opera, but I enjoyed it immensely. But please don't let Nat run this into the ground like his Past, Present, and Future series.

9. "Solution Unsatisfactory"—Anson MacDonald. Heinlein and Mac are holding sway over this list, and why not with the stories they write.

10. "Common Sense"—Robert Heinlein. No comment is necessary when an author has four stories such as Bob has to his credit.

Now that that pleasant task is finished, I will now give my opinion on the covers.

1. January—Rogers—Ahhhhhhhhh.

2. September—Rogers. There's no use giving any more compliments to Rogers, he has exhausted my adjectives.

3. March. 4. August. 5. December. 6. November. 7. April. 8. February. 9. June. 10. October. 11. May. 12. July.

This summary wouldn't be complete without a list of favorite authors and artists, so I'll take the authors first:

1. E. E. Smith, the only reason "Second Stage Lensmen" isn't first in the hit parade is because you said to list it with the stories of 1942. 2. Robert Heinlein. 3. Jack Williamson. 4. L. Sprague de Camp. 5. Ross Rocklynne. 6. Nelson S. Bond. 7. Nat Schachner. 8. Theodore Sturgeon. 9. Isaac Asimov. 10. Anson MacDonald, et cetera, et cetera.

And now the artists:

1. Virgil Finlay, please get some work from this man, he's tops. 2. Hubert Rogers, never let him off those covers. 3. Elliot Dold, why isn't he in *Astounding*? 4. Edd Cartier. 5. Frank R. Paul, some art work by him wouldn't hurt. 6. Charles Schneeman. 7. H. W. Wesso, please get him back. 8. Frank Kramer. 9. H. W. McCauley.

Astounding has grown rapidly this past year, both in quality and quantity. But still there are a few faults apparent; I hope the change in size will render these null and void. The greatest error lies in the artistry, the artists that you use are not entirely to my liking, neither are the constant uses of small cuts and lesser full-page spreads meeting with approval. The readers' column has diminished to scanty length and fewer letters. But *Astounding* is still the unquestioned leader of science-fiction and, I hope, will remain that for years to come.—Vincent Scullin, care of John Shields, 2914-29th Street, Washington, D. C.



SECOND STAGE LENS MEN

By E. E. Smith, Ph. D.

● CONCLUDING "Skylark" Smith's latest novel of the Patrol. Kinnison shows that one man, in the right place, can wreck a fighting force more thoroughly than a fleet. And the right place — is absolute ruler of the enemy!

Illustrated by Hubert Rogers

Synopsis

When the inertialess drive was perfected and commerce throughout the Galaxy became commonplace, crime became so rampant as to threaten Civilization. Then came into being the Galactic Patrol, an organization whose highest members, the Lensmen, are of unlimited authority and range. Each is identified by his Lens, a pseudoliving, tele-

pathic jewel matched to the ego of its owner by the Arisians, a race of beings of unthinkable age and of immense power of mind. The Lens cannot be counterfeited, since it glows with color when its owner wears it and kills any other who attempts to do so.

Of all the eighteen-year-olds of Earth, only about a hundred win through the five-year period of elimination and become Lensmen. Kim-

ball Kinnison graduates Number One in his class and sets out to capture one of the new-type ships of the "pirates"—in reality Boskonians, adherents to a culture even more widely spread than Civilization. He succeeds, but with Van Buskirk, a Valerian, is compelled to take to a lifeboat.

They land upon Velantia and aid Worsel, a scientist, in overcoming the Overlords, a horribly parasitic

race of Delgon, a neighboring planet. En route to Earth they land upon Trencu, the planet upon which is produced thionite, the deadliest of all habit-forming drugs.

Kinnison seeks Grand Base, Boskone's military galactic headquarters. He is seriously wounded, and in Base Hospital is cared for by Nurse Clarissa MacDougall. Surgeon General Lacy and Port Admiral Haynes promote a romance between nurse and Lensman. Kinnison goes to Arisia for advanced mental training, acquiring the sense of perception and the ability to control the minds of others. He investigates Grand Base, finding it impregnable to direct attack. He obtains a vast supply of thionite from Trencu. He breaks into Grand Base and floods its air with thionite, wiping out all the personnel except Helmuth, the Boskonian commander. The Patrol attacks and Grand Base falls.

He discovers that Boskone's supreme command is in the Second Galaxy, and decides that the best way to get a line upon it is to work upward through the drug syndicate. Disguised as a dock wallop, he frequents the saloon of Bominger, the fat drug baron of the planet Radelix, and helps raid it. He calls a Conference of Scientists, which devises the means of building a bomb of negative matter. Strongheart, the next in line above Bominger, he investigates as Wild Bill Williams, of Aldebaran II, meteor miner; after having become a heavy drinker and a bentam eater. From Strongheart's mind he learns that his next objective is Crowninshield of Tresslia III, the operator of a very high-class pleasure palace.

Boskone forms an alliance with the Overlords of Delgon, and through a hyperspatial tube they attack the commerce of humanity. But Kinnison and the Dauntless, the Patrol's finest spaceship, go down the tube and blast out the installation.

In order to investigate Crowninshield logically, Wild Bill Williams strikes it rich in the meteor belts and becomes William Williams, Aldebaranian gentleman—he having actually been a gentleman once. From Crowninshield he gets a line upon Jalte, one of the Galactic Directors, whose stronghold is in a star cluster just outside the First Galaxy. He goes there and learns that Jalte does take orders from Boskone; which is not a single entity, but a Council of Nine of the Eich, a monstrous race inhabiting Jarnevon.

He and Worsel go there on a scouting expedition. Kinnison gets into the stronghold, but is blinded

and tortured. Worsel helps him escape and they get back to Prime Base. Kinnison's hands and feet have to be amputated; but Phillips, a Posenian surgeon who has finally finished his researches in neurology and hormones, causes new limbs and eyes to grow in place of the lost members.

Grand Fleet invades the Second Galaxy. Jalte's planet is consumed by a bomb of negative matter, the enemy fleet is wiped out, and Jarnevon is crushed between two colliding inert planets.

Kinnison learns that a counter-attack is to be made against Tellus. The invading fleet is destroyed largely by the use of the "sunbeam," a concentration of all the energy of the Sun into one beam. He goes to Lyrane II, peopled by matriarchs who hate all men and all other beings except themselves. There he captures Ilona Potter, a Boskonian agent. She is not a hardened spy, but a lovable youngster.

Her planet, Lonabar, is unknown to Civilization. Menjo Bleeko is its dictator. She is wearing "beads" which are in reality priceless gems—Lonabar's real jewels, which she describes, are unknown to man. Only one Lensman, Nadreck of Palain VII, a frigid-blooded poison-breather, has ever seen any of those gems. He finds Lonabar and maps it.

Both Lyrane II and Lonabar must be investigated, and no known Lensman can work against the opposition of the matriarchs. Hence Clarissa is made a Lensman and assigned to the task. Kinnison works Lonabar as Cartiff, an outlaw jeweler. He overcomes Menjo Bleeko. Before killing him he discovers that Bleeko's mind has been so operated upon that he does not remember sending an expedition to Lyrane. It must be important—and Mac is there alone! Worsel, Tregonsee, and Nadreck join Kinnison upon Lyrane II, and from Clarissa's data they deduce that a cavern of Overlords is located upon the planet.

The Patrolmen locate the cavern, capture the Overlords, and read their minds; learning that the Eich have established a very heavily fortified base upon Lyrane VIII. Instead of attacking this base, Nadreck penetrates its defenses by stealth, finding out that they take orders from an Eichlike monster named Kandron, of the planet Onlo in the Second Galaxy. He learns also of Kandron's master, the human Alcon, Tyrant of Thrale. Kinnison and Nadreck trace the line of intergalactic communication, while Grand Fleet, to cover the operation, invades the Second Galaxy in force.

Grand Fleet meets and destroys the Boskonian fleet, then begins to colonize and to fortify the planet Klovla, for use as a base. Nadreck goes to Onlo, to work against Kandron; Kinnison to Thrale. By altering records and living minds to fit, Kinnison takes the name and position of Traska Gannel, an officer of Alcon's Royal Guards. He works his way up, becoming a major. He is about to be chosen one of Alcon's personal advisers when Nadreck tells him that Kandron is about to leave Onlo via hyperspatial tube. Kinnison calls the dauntless and follows Kandron. Before arriving at destination the ship is thrown out of the tube into unfamiliar space.

PART IV

XVIII.

Here, upon the background of a blackness so intense as to be obviously barren of nebular material, there lay a multitude of blazingly resplendent stars—and nothing except stars. A few hundred were of a visual magnitude of about minus three. Approximately the same number were of minus two or thereabouts, and so on down; but there did not seem to be a star or other celestial object in that starkly incredible sky of an apparent magnitude greater than about plus four.

"What do you make of this, Sir Austin?" Kinnison asked, quietly. "It's got me stopped like a traffic light."

The mathematician ran toward him and the Lensman stared. He had never known Cardynge to hurry—in fact, he was not really running now. He was walking, even though his legs were fairly twinkling in their rapidity of motion. As he approached Kinnison his mad pace gradually slowed to normal.

"Oh—time must be cockeyed here, too," the Lensman observed. "Look over there—see how fast those fellows are moving, and how slow those others over that way are?"

"Ah, yes. Interesting—intensely interesting. Truly, a most remarkable and intriguing

phenomenon," the fascinated mathematician enthused.

"But that wasn't what I meant. Swing this plate—it's on visual—around outside, so as to get the star aspect and distribution. What do you think of it?"

"Peculiar—I might almost say unique," the scientist concluded, after his survey. "Not at all like any normal configuration or arrangement with which I am familiar. We could perhaps speculate, but would it not be preferable to secure data first? Say by approaching a solar system and conducting systematic investigations?"

"Uh-huh"—and again Kinnison stared at the wispy little physicist in surprise. Here was a *man!* "You're certainly something to tie to, ace, do you know it?" he asked, admiringly. Then, as Cardynge gazed at him questioningly, incomprehendingly:

"Skip it. Can you hear me, Henderson?"

"Yes—just barely."

"Shoot us across to one of those nearer stars, stop, and go inert."

"QX, chief." The pilot obeyed.

And in the instant of inerting, the visplate into which the two men stared went blank. The thousands of stars studding the sky a moment before had disappeared as though they had never been.

"Why. . . What. . . How in all the yellow hells of space can that happen?" Kinnison blurted.

Without a word, Cardynge reached out and snapped the plates receiver over from "visual" to "ultra," whereupon the stars reappeared as suddenly as they had vanished.

"Something's screwy somewhere!" the Lensman protested. "We *can't* have an inert velocity greater than that of light—it's impossible!"

"Few things, if any, can be said definitely to be impossible; and everything is relative, not absolute," the old scientist declared, pompously. "This space, for instance. You have not yet

perceived, I see, even that you are not in the same three-dimensional space in which we have heretofore existed."

Kinnison gulped. He was going to protest about that, too, but in the face of Cardynge's unperturbed acceptance of the fact he did not quite dare to say what he had in mind.

"That is better," the old man declaimed. "Do not get excited—to do so dulls the mind. Take nothing for granted, do not jump at conclusions—to commit either of those errors will operate powerfully against success. Working hypotheses, young man, must be based upon accurately determined facts; not upon mere guesses, superstitions, or the figments of personal prejudices."

"Bub-bub-but . . . QX—skip it!" Nine tenths of the *Dauntless'* crew would have gone out of control at the impact of the knowledge of what had happened; even Kinnison's powerful mind was shaken. Cardynge, however, was—not seemed to be, but actually was—as calm and as self-contained as though he were in his own quiet study. "Explain it to me, will you please, in words of as nearly one syllable as possible?"

"Our looser thinkers have for centuries speculated upon the possibility of an entire series of different spaces existing simultaneously, side by side in a hypothetical hypercontinuum. I have never indulged in such time-wasting; but now that actual corroborative data have become available, I regard it as a highly fruitful field of investigation. Two extremely significant facts have already become apparent; the variability of time and the non-applicability of our so-called 'laws' of motion. Different spaces, different laws, it would seem."

"But when we cut our generators in that other tube we emerged into our own space," Kinnison argued. "How do you account for that?"

"I do not as yet try to account for it!" Cardynge snapped. "Two very evident possibilities should already be apparent, even to your feeble brain. One, that at the moment of release your vessel happened to be situated within a fold of our own space. Two, that the collapse of the ship's force fields always returns it to its original space, while the collapse of those of the shore station always forces it into some other space. In the latter case, it would be reasonable to suppose that the persons or beings at the other end of the tube may have suspected that we were following Kandron, and, as soon as he landed, cut off their forces deliberately to throw us out of space. They may even have learned that persons of lesser ability, so treated, never return. Do not allow yourself to be at all impressed by any of these possibilities, however, as the truth may very well lie in something altogether different. Bear it in mind that we have as yet very little data upon which to formulate any theories, and that the truth can be revealed only by a very careful, accurate, and thorough investigation. Please note also that I would surely have discovered and evaluated all these unknowns during the course of my as yet incomplete study of our own hyperspatial tubes; that I am merely continuing here a research in which I have already made noteworthy progress."

Kinnison really gasped at that—the guy was certainly terrific! He called the chief pilot. "Go free, Hen, and start flitting for a planet—we've got to sit down somewhere before we can start back home. When you find one, land free. Stay free, and watch your Bergs—I don't have to tell you what will happen if they quit on us."

Then Thorndyke. "Verne? Break out some personal neutralizers. We've got a job of building to do—inertialess!"—and he explained to both men in



"I will not have my mind invaded," Kim snapped. "That is a violation of my personal privacy I will not yield!"

flashing thoughts what had happened and what they had to do.

"You grasp the basic idea, Kinnison," Cardynge approved, "that it is necessary to construct a station apart from the vessel in which we propose to return to our normal environment. You err grievously, however, in your insistence upon the necessity of discovering a planet, satellite, asteroid, or other similar celestial body upon which to build it."

"Huh?" Kinnison demanded.

"It is eminently possible—yes, even practicable—for us to use the *Dauntless* as an anchorage

for the tube and for us to return in the lifeboats," Cardynge pointed out.

"What? Abandon this ship? Waste all that time rebuilding all the boats?"

"It is preferable, of course, and more expeditious, to find a planet, if possible," the scientist conceded. "However, it is plain that it is in no sense necessary. Your reasoning is fallacious, your phraseology is deplorable. I am correcting you in the admittedly faint hope of teaching you scientific accuracy of thought and of statement."

"Wow! Wottaman!" Kinni-

son breathed to himself, as, heroically, he "skipped it."

Somewhat to Kinnison's surprise—he had more than half expected that planets would be nonexistent in that space—the pilots did find a solid world upon which to land. It was a peculiar planet indeed. It did not move right, it did not look right, it did not feel right. It was waterless, airless, desolate; a senseless jumble of jagged fragments, mostly metallic. It was neither hot nor cold—indeed, it seemed to have no temperature of its own at all. There

was nothing whatever right about it, Kinnison declared.

"Oh, yes, there is!" Thorndyke contradicted. "Time is constant here, whatever its absolute rate may be, these metals are nice to work with, and some of this other stuff will make insulation. Or hadn't you thought of that? Which would be faster, cutting down an intrinsic velocity of fifteen lights to zero or building the projector out of native materials? And if you match intrinsics, what will happen when you hit our normal space again?"

"Plenty, probably . . . uh-huh, faster to use the stuff that belongs here. Careful, though, fella!"

And care was indeed necessary; extreme care that not a particle of matter from the ship was used in the construction and that not a particle of the planet's substance by any mischance got aboard the spaceship.

The actual work was simple enough. Cardyngne knew exactly what had to be done. Thorndyke knew exactly how to do it, as he had built precisely similar generators for the experimental tubes upon Tellus. He had a staff of experts; the *Dauntless* carried a machine shop and equipment second to none. Raw material was abundant, and it was an easy matter to block out an inertialess room within which the projectors and motors were built. And, after they were built, they worked.

It was not the work, then, but the strain which wore Kinnison down. The constant, wearing strain of incessant vigilance to be sure that the Bergenholms and the small units of the personal neutralizers did not falter for a single instant. He did not lose a man, but again and again there flashed into his mind the ghastly picture of one of his boys colliding with the solid metal of the planet at a relative velocity fifteen times that of light! The strain of the endless checking and rechecking to make certain that there was no

exchange of material, however slight, between the ship and the planet.

Above all, the strain of knowing a thing which, apparently, no one else suspected: that Cardyngne, with all his mathematical knowledge, was not going to be able to find his way back! He had never spoken of this to the scientist. He did not have to. He knew that without a knowledge of the fundamental distinguishing characteristics of our normal space—a knowledge even less to be expected than that a fish should know the fundamental equations and structure of water—they never could, save by sheerest accident, return to their own space. And as Cardyngne grew more and more tensely, unsocially immersed in his utterly insoluble problem, the more and more uneasy the Gray Lensman became. But this last difficulty was resolved first, and in a totally unexpected fashion.

"Ah, Kinnison of Tellus, here you are—I have been considering your case for some twenty-nine of your seconds," a deep, well-remembered voice resounded within his brain.

"Mentor!" he exclaimed, and at the sheer shock of his relief he came very near indeed to fainting. "Thank Klono and Noshabkeming you found us! How did you do it? How do we get ourselves out of here?"

"Finding you was elementary," the Arisian replied, calmly. "Since you were not in your own environment you must be elsewhere. If my mind had been really competent, I would have foreseen this event in detail. Even though I did not so foresee it, however, it required but little thought to perceive that it was a logical, in fact, an inevitable, development. Such being the case, it needed very little additional effort to determine what had happened, and how, and why; likewise precisely where you must now be. As for departure therefrom, your me-

chanical preparations are both correct and adequate. I could give you the necessary knowledge, but it is rather technically specialized and not negligible in amount; and since your brain is of very limited capacity, it is better not to fill any part of it with mathematics for which you will have no subsequent use. Put yourself *en rapport*, therefore, with Sir Austin Cardyngne. I will follow."

He did so, and as mind met mind there ensued a conversation whose barest essentials Kinnison could not even dimly grasp. For Cardyngne, as has been said, could think in the universal language of mathematics; in the esoteric symbology which very few minds have ever been able even partially to master. The Lensman did not get it, nor any part of it; he knew only that in that to him completely meaningless gibberish the Arisian was describing to the physicist, exactly and fully, the distinguishing characteristics of a vast number of parallel and simultaneously coexistent spaces.

If that was "rather" technical stuff, the awed Lensman wondered, what would really deep stuff be like? Not that he wanted to find out! No wonder these mathematical wizards were nuts—went off the beam—he'd be pure squirrel food if he had half that stuff in *his* skull!

But Sir Austin took to it like a cat lapping up cream or doing away with the canary. He brightened visibly; he swelled; and, when the Arisian had withdrawn from his mind, he preened himself and swaggered as he made meticulous adjustments of the delicate meters and controls which the technicians had already built.

Preparations complete, Cardyngne threw in the switches and everything belonging to the *Dauntless* was rushed aboard. The neutralizers, worn so long and cherished so assiduously, were taken off with profound sighs of relief. The vessel was

briefly, tentatively inerted. QX—no faster-than-light meteorites tore volatilizing through her mass. So far, so good.

Then the ship's generators were energized and smoothly, effortlessly the big battle wagon took the interdimensional plunge. There came the expected, but nevertheless almost unendurable acceleration; the imperceptible, unloggable flight through the drably featureless grayness; the horrible deceleration. Stars flashed beautifully upon the plates.

"We made it!" Kinnison shouted in relief when he had assured himself that they had emerged into "real" space inside the Second Galaxy, only a few parsecs away from their point of departure. "By Klono's golden grin, Sir Austin, you figured it to a red whisker! And when the Society meets, Tuesday week, won't you just blast that ape Weingarde to a cinder? Hot dog!"

"Having the basic data, the solution and the application followed of necessity—automatically—uniquely," the scientist said, austerely. He was highly pleased with himself, he was tremendously flattered by the Lensman's ebullient praise; but not for anything conceivable would he have so admitted.

"Well, the first thing we had better do is to find out what time of what day it is," Kinnison went on, as he directed a beam to the Patrol headquarters upon Klovio.

"Better ask 'em the year, too," Henderson put in, pessimistically—he had missed Illona poignantly—but it was not that bad.

In fact, it was not bad at all; they had been gone only a little over a week of Thralian time. This finding pleased Kinnison immensely, as he had been more than half afraid that it had been a month. He could explain a week easily enough, but anything over two weeks would have been tough to handle.

The supplies of the Thralian speedster were adjusted to fit the actual elapsed time, and Worsel and Kinnison engraved upon the minds of the five unconscious Guardsmen completely detailed—even though equally completely fictitious—memories of what they and Major Gannel had done since leaving Thrale. Their memories were not exactly alike, of course—each man had had different duties and experiences, and no two observers see precisely the same things even while watching the same event—but they were very convincing. Also, and fortunately, not even the slightest scars were left by the operations, for in these cases no memory chain had to be broken at any point.

The *Dauntless* blasted off for Klovio; the speedster started for Thrale. Kinnison's crew woke up—without having any inkling that they had ever been unconscious or that their knowledge of recent events did not jibe exactly with the actual occurrences—and resumed work.

Immediately upon landing, Kinnison turned in a full official report of the mission, giving himself neither too much nor too little credit for what had been accomplished. They had found a Patrol sneak-boat near Line 11. They had chased it so many parsecs, upon such-and-such a course, before forcing it to engage. They had crippled it and boarded, bringing away material, described as follows, which had been turned over to Space Intelligence. And so on. It would hold, Kinnison knew; and it would be corroborated fully by the ultraprivate reports which his men would make to their real bosses.

The colonel made good; hence with due pomp and ceremony Major Traska Gannel was inducted into the Household. He was given one of the spy-ray-screened cigarette boxes in which Alcon's most trusted officers were allowed to carry their

private, secret insignia. Kinnison was glad to get that—he could carry his Lens with him now, if the thing was really ray proof, instead of leaving it buried in a can outside the city limits.

The Lensman went to his first meeting of the Advisory Cabinet with his mind set on a hair trigger. He hadn't been around Alcon very much, but he knew that the Tyrant had a stronger mind shield than any untreated human being had any right to have. He'd have to play this mighty close to his chest—he didn't want any zwilnik reading his mind, yet he didn't want to create suspicion by revealing the fact that he, too, had an impenetrable block.

As he approached the cabinet chamber he walked into a zone of hypnosis, and practically bounced. He threw up his head: it was all he could do to keep his barriers down. It was general, he knew, not aimed specifically at him—to fight the hypnotist would be to call attention to himself as the only man able either to detect his work or to resist him; would give the whole show away. Therefore he let the thing take hold—with reservations—of his mind. He studied it. He analyzed it. Sight only, eh? QX—he'd let Alcon have superficial control, and he wouldn't put too much faith in anything he saw.

He entered the room; and, during the preliminaries, he reached out delicately, to touch imperceptibly mind after mind. All the ordinary officers were on the level; now he'd see about the prime minister. He'd heard a lot about this Fossten, but had never met him before—he'd see what the guy really had on the ball.

He did not find out, however. He did not even touch his mind, for that worthy also had an automatic block; a block as effective as Alcon's or as Kinnison's own.

Sight was unreliable; how about the sense of perception?

He tried it, very daintily and gingerly, upon Alcon's feet, legs, arms, and torso. Alcon was real, and present in the flesh. Then the premier—and he yanked his sense back, canceled it, appalled. Perception was blocked, at exactly what his eyes told him was the fellow's skin!

That tore it—that busted it wide open. What in all the nine iridescent hells did that mean? He didn't know of anything except a thought-screen that could stop a sense of perception. He thought intensely. Alcon's mind was bad enough. It had been treated, certainly; mind shields like that didn't grow naturally on human or near-human beings. Maybe the Eich, or the race of super-Eich to which Kandron belonged, could give mental treatments of that kind. Fossen, though, was worse.

Alcon's boss! Probably not a man at all. It was he, it was clear, and not Alcon, who was putting out the zone of compulsion. An Eich, maybe? No, he was a warm-blooded oxygen breather; a frigid-blooded super-big-shot would make Alcon come to him. A monster, almost certainly, though; possibly of a type Kinnison had never seen before. Working by remote control? Possibly; but probably he was smaller than a man and was actually inside the dummy that everybody thought was the prime minister—that was it, for all the tea in China—

"And what do you think, Major Gannel?" the prime minister asked, smoothly, insinuating his mind into Kinnison's as he spoke.

Kinnison, who knew that they had been discussing an invasion of the First Galaxy, hesitated as though in thought. He was thinking, too, and ultra-carefully. If that ape was out to do a job of digging he'd never dig again—QX, he was just checking Gannel's real thoughts against what he was going to say.

"Since I am such a newcomer

to this Council I do not feel as though my opinions should be given too much weight," Kinnison said—and thought—slowly, with the exactly correct amount of obsequiousness. "However, I have a very decided opinion upon the matter. I believe very firmly that it would be better tactics to consolidate our position here in our own galaxy first."

"You advise, then, against any immediate action against Tel-lus?" the prime minister asked. "Why?"

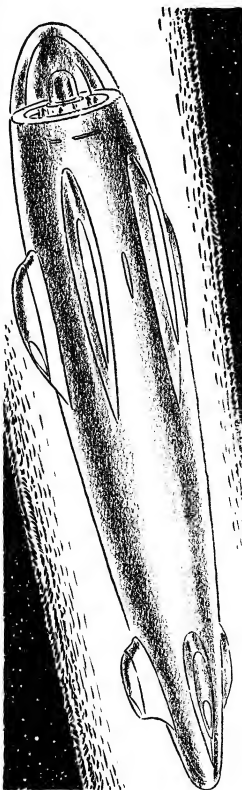
"I do, definitely. It seems to me that shortsighted, half-prepared measures, based upon careless haste, were the underlying causes of our recent reverses. Time is not an important factor—the Great Plan was worked out, not in terms of days or of years, but of centuries and millennia—and it seems self-evident that we should make ourselves impregnable secure, then expand slowly; seeing to it that we can hold, against everything that the Patrol can bring to bear, every planet that we take."

"Do you realize that you are criticizing the chiefs of staff who are in complete charge of military operations?" Alcon asked, venomously.

"Fully," the Lensman replied coldly. "I ventured this opinion because I was asked specifically for it. The chiefs of staff failed, did they not? If they had succeeded, criticism would have been neither appropriate nor forthcoming. As it is, I do not believe that mere criticism of their conduct, abilities, and tactics is sufficient. They should be disciplined and demoted. New chiefs should be chosen; persons abler and more efficient than the present incumbents."

This was a bomb shell. Dis-sensions waxed rife and raucous, but amidst the turmoil the Lensman received from the prime minister a flash of coldly congratulatory approval.

And as Major Traska Gannel made his way back to his quar-



ters two things were starkly plain:

First, he would have to cut Alcon down and himself become the Tyrant of Thrale. It was unthinkable to attack or to destroy this planet. It had too many too promising leads—there were too many things that didn't make sense—above all, there were the stupendous files of information which no one mind could scan in a lifetime.

Second, if he wanted to keep on living he would have to keep his detector shoved out to maximum—this prime minister was just about as touchy and just about as safe to play with as a hundred kilograms of dry nitro-gen iodide!

XIX.

Nadreck, the Palainian Lensman, had not exaggerated in saying that he could not leave his job, that his work would come undone if he did.

As has been intimated, Nadreck was cowardly and lazy and characterized otherwise by traits not usually regarded by human-kind as being noble. He was, however, efficient; and he was now engaged in one of the most colossal tasks ever attempted by any one Lensman. Characteristically, he had told no one, not even Haynes or Kinnison, what it was that he was trying to do—he never talked about a job until after it was done, and his talking then was usually limited to a taped, Lensman's-sealed, tersely factual report. He was "investigating" Onlo; that was all that anybody knew.

Onlo was at that time perhaps the most heavily fortified planet in the Universe. Compared to its massed might Jarnevon was weak; Tellus, except for its sunbeams and its other open-space safeguards, a joke. Onlo's defenses were all, or nearly all, planetary; Kandon's strategy, unlike Haynes', was to let any attacking force get almost down to the ground and then blast it out of existence.

Thus Onlo was in effect one tremendously armed, titanicly powered fortress; not one cubic foot of its poisonous atmosphere was out of range of projectors theoretically capable of puncturing any defensive screen possible of mounting upon a mobile base.

And Nadreck, the cowardly, the self-effacing, the apologetic, had tackled Onlo—alone!

Using the technique which has already been described in connection with his highly successful raid upon the Eich stronghold of Lyrane VIII, he made his way through the Onlonian defensive screens and settled down comfortably near one of the gigantic domes. Then, as though time were of no consequence whatever, he proceeded to get acquainted with the personnel. He learned the identifying symbol of each entity and analyzed every one psychologically, mentally, intellectually, and emotionally. He tabulated his results upon the Palainian equivalent of index cards, then very carefully arranged the cards into groups.

In the same fashion he visited and took the census of dome after dome. No one knew that he had been near, apparently he had done nothing; but in each dome as he left it there had been sown seeds of discord and of strife which, at a carefully calculated future time, would yield bitter fruit indeed.

For every mind has some weakness, each intellect some trait of which it does not care to boast, each Achilles his heel. That is true even of Gray Lensmen—and the Onlonians, with their heredity and environment of Boskonianism, were in no sense material from which Lensmen could be made.

Subtly, then, and coldly and callously, Nadreck worked upon the basest passions, the most ignoble traits of that far-from-noble race. Jealousy, suspicion, fear, greed, revenge—quality by quality he grouped them, and to

each group he sent series after series of horribly stimulating thoughts.

Jealousy, always rife, assumed fantastic proportions. Molehills became mountains overnight. A passing word became a studied insult. No one aired his grievances, however, for always and everywhere there was fear—fear of discipline, fear of reprisal, fear of betrayal, fear of the double cross. Each monster brooded, sullenly intense. Each became bitterly, gallingly, hatefully aware of an unwarranted and intolerable persecution. Not much of a spark would be necessary to touch off such explosive material as that!

Nadreck left the headquarters dome until the last. In one sense it was the hardest of all; in another the easiest. It was hard in that the entities there had stronger minds than those of lower station; minds better disciplined, minds more accustomed to straight thinking and to logical reasoning. It was easy, however, in that those minds were practically all at war already—fighting either to tear down the one above or to resist the attacks of those below. On the whole, therefore, the headquarters dome was relatively easy, since every mind in it already hated, or feared, or distrusted, or was suspicious of or jealous of some other.

And while Nadreck labored thus deviously his wonders to perform, Kinnison went ahead in his much more conventional and straightforward fashion upon Thrale. His first care, of course, was to surround himself with the usual coterie of spies and courtiers.

The selection of this group gave Kinnison many minutes of serious thought. It was natural enough that he had not been able to place any of his own men in the secret service of Alcon or the prime minister, since they both had minds of power. It would not be natural, however,

for either of them not to be able to get an agent into his. For to be too good would be to invite a mental investigation which he simply could not as yet permit. He would have to play dumb enough so that his hitherto unsuspected powers of mind would remain unsuspected.

He could, however, do much. Since he knew who the spies were, he was able quite frequently to have his more trusted henchmen discover evidence against them, branding them for what they were. Assassinations were then, of course, very much in order. And even a strong suspicion, even though it could not be documented, was grounds for a duel.

In this fashion, then, Kinnison built up his entourage and kept it reasonably free from subversive elements; and, peculiarly enough, those elements never happened to learn anything which the Lensman did not want them to know.

Building up a strong personal organization was now easy, for at last Kinnison was a real Boskonian big shot. As a major of the Household he was a power to be toadied to and fawned upon. As a personal adviser to Alcon the Tyrant he was one whose ill will should be avoided at all costs. As a tactician who had so boldly, and yet so altruistically, put the skids under the chiefs of staff, thereby becoming a favorite even of the dreaded prime minister, he was marked plainly as a climber to whose coat tails it would be wise to cling. In short, Kinnison made good in a big—it might almost be said in a stupendous—way.

With such powers at work the time of reckoning could not be delayed for long. Alcon knew that Gannel was working against him; learned very quickly, since he knew exactly the personnel of Kinnison's "private" secret service and could read at will any of their minds, that Gannel held most of the trumps. The Tyrant had tried many times to read the

major's mind, but the latter, by some subterfuge or other, had always managed to elude his inquisitor without making an issue of the matter. Now, however, Alcon drove in a solid questing beam which, he was grimly determined, would produce results of one kind or another.

It did: but, unfortunately for the Thralian, they were nothing which he could use. For Kinnison, instead either of allowing the Tyrant to read his whole mind or of throwing up an all-too-revealing barricade, fell back upon the sheer native power of will which had made him unique in his generation. He concentrated upon an all-inclusive negation; which in effect was a rather satisfactory block and which was entirely natural.

"I don't know what you are trying to do, Alcon," he informed his superior, stiffly, "but whatever it is I do not like it. I think that you are trying to hypnotize me. If you are, know now that you cannot do it; that no possible hypnotic force can overcome my definitely and positively opposed will."

"Major Gannel, you will—" the Tyrant began, then stopped. He was not quite ready yet to come openly to grips with this would-be usurper. Besides, it was now plain that Gannel had only an ordinary mind. He had not even suspected all the prying that had occurred previously. He had not recognized even this last powerful thrust for what it really was; he had merely felt it vaguely and had supposed that it was an attempt at hypnotism!

A few more days and he would cut him down. Hence Alcon changed his tone and went on smoothly, "It is not hypnotism, Major Gannel, but a sort of telepathy which you cannot understand. It is, however, necessary; for in the case of a man occupying such a high position as yours, it is self-evident that we can permit no secrets whatever to be withheld from us— that we can allow no mental res-

ervations of any kind. You see the justice and the necessity of that, do you not?"

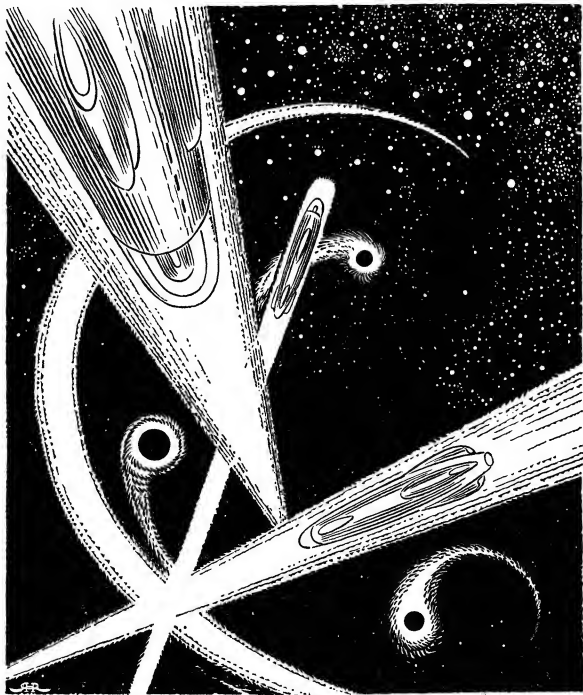
Kinnison did. He saw as well that Alcon was being superhumanly forbearing. Moreover, he knew what the Tyrant was covering up so carefully—the real reason for this highly unusual tolerance.

"I suppose you are right; but I *still* don't like it," Gannel grumbled. Then, without either denying or acceding to Alcon's right of mental search, he went to his own quarters.

And there—or thereabouts—Kinnison wrought diligently at a thing which had been long in the making. He had known all along that his retinue would be useless against Alcon, hence he had built up an organization entirely separate from, and completely unknown to any member of, his visible following. Nor was this really secret outfit composed of spies or sycophants. Instead, its members were hard, able, thoroughly proven men, each one carefully selected for the ability and the desire to take the place of one of Alcon's present department heads. One at a time he put himself *en rapport* with them; gave them certain definite orders and instructions.

Then he put on a mechanical thought-screen. Its use could not make the prime minister any more suspicious than he already was, and it was the only way he could remain in character. This screen was, like those of Lonabar, decidedly pervious in that it had an open slit. Unlike Bleeko's, however, which had their slits set upon a fixed frequency, the open channel of this one could be varied, both in width and in wave length, to any setting which Kinnison desired.

Thus equipped, Kinnison attended the meeting of the Council of Advisers, and to say that he disrupted the meeting is no exaggeration. The other advisers perceived nothing out of the ordinary, of course, but both



Alcon and the prime minister were so perturbed that the session was cut very short indeed. The other members were dismissed summarily, with no attempt at explanation. The Tyrant was raging, furious; the premier was alertly, watchfully intent.

"I did not expect any more physical privacy than I have been granted," Kinnison grated, after listening quietly to a minute or two of Alcon's unbridled lan-

guage. "This thing of being spied upon continuously, both by men and by mechanisms, while it is insulting and revolting to any real man's self-respect, can—just barely—be borne. I find it impossible, however, to force myself to submit to such an ultimately degrading humiliation as the surrender of the only vestiges of privacy I have remaining; those of my mind. I will resign from the Council if you wish, I will re-

sume my status as an officer of the line, but I cannot and will not tolerate your extinction of the last spark of my self-respect," he finished, stubbornly.

"Resign? Resume? Do you think that I will let you off *that* easily, fool?" Alcon sneered. "Don't you realize what I am going to do to you? That, were it not for the fact that I am going to watch you die slowly and hideously, I would have you blasted where you stand?"

"I do not, no, and neither do you," Gannel answered, as quietly as surprisingly. "If you were sure of your ability, you would be doing something instead of talking about it." He saluted, turned, and walked out.

Now the prime minister, as has been intimated, was considerably more than he appeared upon the surface to be. He was in fact the power behind the throne. His, not Alcon's, was the voice of authority, although he worked so subtly that the Tyrant himself never did realize that he was little better than a figurehead.

Therefore, as Gannel departed, the premier thought briefly but cogently. This major was smart—too smart. He was too able, he knew too much. His advancement had been just a trifle too rapid. That thought-screen was an entirely unexpected development. The mind behind it was not quite right, either—a glimpse through the slit had revealed a flash of something that might be taken to indicate that Major Gannel had an ability which ordinary Thralians did not have. This open defiance of the Tyrant of Thrale did not ring exactly true—it was not quite in character. If it had been a bluff, it was too good—much too good. If it had not been a bluff, where was his support? How could Gannel have grown so powerful without his, Fossten's, knowledge?

If Major Gannel were bona fide, all well and good. Boskonian needed the strongest possible leaders, and if any other man showed himself superior to Alcon, Alcon should and would die. However, there was a bare possibility that— Was Gannel bona fide? That point should be cleared up without delay. And the prime minister, after a quizzical, searching, more than half contemptuous inspection of the furiously discomfited Tyrant, followed the rebellious, the contumacious, the enigmatic Gannel to his rooms.

He knocked and was admitted.

A preliminary and entirely meaningless conversation occurred. Then:

"Just when did you leave Eddore?" the visitor demanded.

"What do you want to know for?" Kinnison shot back. That question didn't mean a thing to him. Maybe it didn't to the big fellow, either—it could be just a catch—but he didn't intend to give any kind of an analyzable reply to any question that this ape asked him.

Nor did he, through thirty minutes of viciously skillful verbal fencing. That conversation was far from meaningless, but it was entirely unproductive of results; and it was a baffled, intensely thoughtful Fossten who at its conclusion left Gannel's quarters. From those quarters he went to the Hall of Records, where he requisitioned the major's dossier. Then to his own private laboratory, where he applied to those records every test known to the scientists of his ultrasuspicious race.

The photographs were right in every detail. The prints agreed exactly with those he himself had secured from the subject not twenty-four hours since. The typing was right. The ink was right. Everything checked. And why not? Ink, paper, fiber, and film were in fact exactly what they should have been. There had been no erasures, no alterations. Everything had been aged to the precisely correct number of days. For Kinnison had known that this check-up was coming, and the experts of the Patrol would make no such crass errors as those.

Even though he had found exactly what he had expected to find, the suspicions of the prime minister were intensified rather than allayed. Besides his own, there were two unreadable minds upon Thrale, where there should have been only one. He knew how Alcon's had been treated—could Gannel's possibly be a natural phenomenon? If

not, who had treated it, and why?

He left the palace then, ostensibly to attend a function at the military academy. There, too, everything checked. He visited the town in which Gannel had been born—finding no irregularities whatever in the records of the birth. He went to the city in which Gannel had lived for the greater part of his life; where he assured himself that school records, club records, even photographs and negatives, all dead-centered the beam.

He studied the minds of six different persons who had known Gannel from childhood. As one they agreed that the Traska Gannel who was now Traska Gannel was in fact the real Traska Gannel, and could not by any possibility be anyone else. He examined their memory tracks minutely for scars, breaks, or other evidences of surgery; finding none. In fact, none existed, for the therapists who had performed those operations had gone back clear to the very beginnings, to the earliest memories of the Gannel child.

In spite of the fact that all the data thus far investigated were so precisely what they should have been—or because of it—the prime minister was now morally certain that Gannel was, in some fashion or other, completely spurious. Should he go further, delve into unimportant but perhaps highly revealing side issues? It would be useless, he decided. The mind or minds who had falsified those records so flawlessly—if they had in fact been falsified—had done a beautiful piece of work; as masterly a job as he himself could have done. He himself would have left no traces; neither, in all probability, had they.

Who, then, and why? This was no ordinary plot, no part of any ordinary scheme to overthrow Alcon. It was bigger, deeper, far more sinister. Nothing so elaborate and efficient originating upon Thrale could

possibly have been developed and executed without his knowledge and at least his tacit consent. Was there behind this thing someone who knew who and what he was and who was seeking his life and his place? Highly improbable. No—it must be—it was—the Patrol!

His mind flashed to Star A Star, reviewing everything that had been ascribed to that mysterious personage. Then something clicked—in fact, it stuck out.

BLAKESLEE!

This was much finer than the Blakeslee affair, of course; more subtle and more polished by far. It was not nearly as obvious, as blatant, but the basic similarity was nevertheless there. Could this similarity have been accidental? No—unthinkable. In this undertaking accidents could be ruled out—definitely. Whatever had been done had been done deliberately and after meticulous preparation.

But Star A Star *never* repeated. Therefore, this time, he *had* repeated; deliberately, to throw Alcon and his psychologists off the trail. But he, Fosten, was not to be deceived by even such clever tactics.

Gannel was, then, really Gannel, just as Blakeslee had really been Blakeslee. Blakeslee had obviously been under control. Here, however, there were two possibilities. First, Gannel might be under similar control. Second, Star A Star might have operated upon Gannel's mind so radically as to make an entirely different man of him. Either hypothesis would explain Gannel's extreme reticence in submitting to any except the most superficial mental examination. Each would account for Gannel's calm certainty that Alcon was afraid to attack him openly. Which of these hypotheses was the correct one could be determined later. It was unimportant, anyway, for in either case there was now accounted for the

heretofore inexplicable power of Gannel's mind.

In either case it was not Gannel's mind at all, but that of THE Lensman, who was making Gannel act as he could not normally have acted. Somewhere hereabouts, in either case, there actually was lurking Boskonian's Nemesis; the mentality whom above all others Boskonian was raving to destroy; the one Lensman who had never been seen or heard or perceived; the feared and detested Lensman about whom nothing whatever had ever been learned.

That Lensman, whoever he might be, had at last met his match. Gannel, as Gannel, was of no importance whatever; the veriest pawn. But he who stood behind Gannel—Ah! He, Fosten himself, would wait and he would watch. Then, at precisely the correct instant, he would pounce!

And Kinnison, during the absence of the prime minister, worked swiftly and surely. Twelve men died, and as they ceased to live twelve others, grimly ready and thoroughly equipped for any emergency, took their places. And during that same minute of time Kinnison strode into Alcon's private sanctum.

The Tyrant hurled orders to his guards—orders which were not obeyed. He then went for his own weapons, and he was fast—but Kinnison was faster. Alcon's guns and hands disappeared and the sickened Tellurian slugged him into unconsciousness. Then grimly, relentlessly, he took every item of interest from the Thralian's mind, slew him, and assumed forthwith the title and the full authority of the Tyrant of Thrall.

Unlike most such revolutions, this one was accomplished with very little bloodshed and with scarcely any interference with the business of the realm. Indeed, if anything, there was an

improvement in almost every respect, since the new men were more thoroughly trained and were more competent than the previous officers had been. Also, they had arranged matters beforehand so that their accessions could be made with a minimum of friction.

They were as yet loyal to Kinnison and to Boskonian; and in a rather faint hope of persuading them to stay that way, without developing any queer ideas anent in turn overthrowing him, the Lensman called them into conference.

"Men, you know how you got where you are," he began, coldly. "You are loyal to me at the moment. You know that real co-operation is the only way to achieve maximum productivity, and that true co-operation cannot exist in any regime in which the department heads, individually or en masse, are trying to do away with the dictator.

"Some of you will probably be tempted very shortly to begin to work against me instead of for me and with me. I am not pleading with you, nor even asking you out of gratitude for what I have done for you, to refrain from such activities. Instead, I am telling you as a simple matter of fact that any or all of you, at the first move toward any such disloyalty, will die. In that connection, I know that all of you have been exerting every resource to discover in what manner your predecessors came so conveniently to die, and that none of you have succeeded."

One by one they admitted that they had not.

"Nor will you, ever. Be advised that I know vastly more than Alcon did, and that I am far more powerful. Alcon, while in no sense a weakling, did not know how to command obedience. I do. Alcon's sources of information were meager and untrustworthy; mine are comprehensive and reliable. Alcon very often did not know that anything was being plotted

against him until the thing was well along; I shall always know of the first seditious move. Alcon blustered, threatened, and warned; he tortured; he gave some offenders a second chance before he killed. I shall do none of those things. I do not threaten, I do not warn, I do not torture. Above all, I give no snake a second chance to strike at me. I execute traitors without bluster or fanfare. For your own good, gentlemen, I advise you in all seriousness to believe that I mean precisely every word that I have uttered."

They slunk out, but Boskonian habit was too strong. Thus, within three days, three of Kinnison's newly appointed headmen died. He called another cabinet meeting.

"The three new members have listened to the recording of our first meeting, hence there is no need to repeat what I said at that time," the Tyrant announced, in a voice so silkily venomous that his listeners cringed. "I will add to it merely that I will have full co-operation, and only co-operation, if I have to kill all of you and all of your successors to get it. You may go."

XX.

This killing made Kinnison ill; physically and mentally sick. It was ruthless, cowardly murder. It was worse than stabbing a man in the back; the poor devils didn't have even the faintest shadow of a chance. Nevertheless he did it.

When he had first invaded the stronghold of the Wheelmen of Aldebaran I, he had acted without thinking at all. Lensmen always went in, regardless of consequences. When he had scouted Jarnevon he had thought but little more. True—and fortunately—he took Worsel along; but he did not stop to consider whether or not there were minds in the Patrol better fitted to cope with the problem than was his own. It was his problem, he figured,

and it was up to him to solve it.

Now, however, he knew bitterly that he could no longer act in that comparatively thoughtless fashion. At whatever loss of self-esteem, of personal stature, or of standing, he had to revise the Tellurian Lensmen's Code. It grieved him to admit it, but Nadreck was right. It was not enough to give his life in an attempt to conquer a halfway station; he must remain alive in order to follow through to completion the job which was so uniquely his. He must *think*, assaying and evaluating every factor of his entire task. Then, without considering his own personal feelings, he must employ whatever forces and methods were best fitted to do the work at the irreducible minimum of cost and of risk.

Thus Kinnison sat unharmed upon the throne of the Tyrant of Thrale, and thus the prime minister returned to the palace to find a *fait accompli* awaiting him. That worthy studied with care every aspect of the situation then obtaining before he sought an audience with the new potentate.

"Allow me to congratulate you, Tyrant Gannel," he said, smoothly. "I cannot say that I am surprised, since I have been watching you and your activities for some little time—with distinct approval, I may add. You have fulfilled—more than fulfilled, perhaps—my expectations. Your regime is functioning superbly; you have established in this very short time a smoothness of operation and an *esprit de corps* among the rank and file which are decidedly unusual. There are, however, certain matters about which it is possible that you are not completely informed."

"It is possible," Kinnison agreed, with the merest trace of irony. "Such as?"

"In good time. You know, do you not, who is the real authority here upon Thrale?"

"I know who was," the Tel-

lurian corrected, with the faintest perceptible accent upon the verb. "In part only, however, for if you had concerned yourself wholly, the late Alcon would not have made so many nor so serious mistakes."

"I thank you. That is, as of course you know, because I have only recently taken over. I want the Tyrant of Thrale to be the strongest man of Thrale, and I may say without flattery that I believe he now is. And I would suggest that you add 'sire' when you speak to me."

"I thank you in turn. I will so address you when you call me 'your supremacy'—not sooner."

"We will let it pass for the moment. To come to your question, you apparently do not know that the Tyrant of Thrale, whoever he may be, opens his mind to me."

"I have suspected that such a condition has existed in the past. However, please be informed that I trust fully only those who so trust me; and that thus far in my short life such persons have been few. You will observe that I am still respecting your privacy in that I am allowing your control of my sense of sight to continue. It is not because I trust you, but because your true appearance is to me a matter of complete indifference. For, frankly, I do not trust you at all. I will open my mind to you just exactly as wide as you will open yours to me—no wider."

"Ah—the bravery of ignorance. It is as I thought. You do not realize, Gannel, that I can slay you at any moment I choose, or that a very few more words of defiance from you will be enough." The prime minister did not raise his voice, but his tone was instinct with menace.

"I do not, and neither do you, as I remarked to the then Tyrant Alcon in this very room not long ago. I am sure that you will understand without elaboration the connotations and implications inherent in that remark." Kin-

nison's voice also was low and level, freighted in its every clipped syllable with the calm assurance of power. "Would you be interested in knowing why I am so certain that you will not accept my suggestion of a mutual opening of minds?"

"Very much so."

"Because I suspect that you are, or are in league with, Star A Star of the Galactic Patrol." Even at that astounding charge, Fossten gave no sign of surprise or of shock. "I have not been able as yet to obtain any evidence supporting that belief, but I tell you now that when I do so, you die. Not by power of thought, either, but in the beam of my personal ray gun."

"Ah—you interest me so strangely," and the premier's hand strayed almost imperceptibly toward an inconspicuous button.

"Don't touch that switch!" Kinnison snapped. He did not quite see why Fossten was letting him see the maneuver, but he would bite, anyway.

"Why not, may I ask? It is merely a—"

"I know what it is, and I do not like thought-screens. I prefer that my mind be left free to roam."

Fossten's thoughts raced in turn. Since the Tyrant was on guard, this was inconclusive. It might—or might not—indicate that Gannel was controlled by or in communication with Star A Star.

"Do not be childish," he chided. "You know as well as I do that your accusations are absurd. However, as I reconsider the matter, the fact that neither of us trusts unreservedly the other may not after all be an insuperable obstacle to our working together for the good of Boskonian. I think now more than ever that yours is the strongest Thralian mind, and as such, the logical one to wield the Tyrant's power. It would be a shame to destroy you unnecessarily, especially in view of

the probability that you will come later of your own accord to see the reasonableness of that which I have suggested."

"It is possible," Kinnison admitted, "but not, I would say, probable." He thought that he knew why the lug had pulled in his horns, but he wasn't sure. "Now that we have clarified our attitudes toward each other, have decided upon an armed and suspicious truce, I see nothing to prevent us from working together in a completely harmonious mutual distrust for the good of all. The first thing to do, as I see it, is to devote our every effort to the destruction of the planet Klovian and all the Patrol forces based upon it."

"Right." If Fossten suspected that the Tyrant was somewhat less than frank, he did not show it, and the conversation became strictly technical.

"We must not strike until we are completely ready," was Kinnison's first statement, and he repeated it so often thereafter during the numerous conferences with the chiefs of staff that it came almost to be a slogan.

The prime minister did not know that Kinnison's main purpose was to give the Patrol plenty of time to make Klovian utterly impregnable. Fossten knew nothing of the Patrol's sunbeam, to which even the mightiest fortress possible for man to build could offer scarcely more resistance than could the lightest, the most fragile pleasure yacht.

Hence he grew more and more puzzled, more and more at a loss week by week, as Tyrant Gannel kept on insisting upon building up the strongest, the most logically perfect Grand Fleet which all the ability of their pooled brains could devise. Once or twice he offered criticisms and suggestions which, while defensible according to one theory, would actually have weakened Grand Fleet's striking power. These offerings Gannel

rejected flatly; insisting, even to an out-and-out break with his co-administrator if necessary, upon the strongest possible armada.

The Tyrant wanted, and declared that he must and would have, more and bigger of everything. More and heavier flying fortresses, more and stronger battleships and superdreadnoughts, more and faster cruisers and scouts, more and deadlier weapons.

"We want more of everything than our operations officers can possibly handle in battle," he declared over and over; and he got them. Then:

"Now, you operations officers, learn how to handle them!" he commanded.

Even the prime minister protested at that, but it was finally accomplished. Fossten was a real thinker, as was Kinnison, and between them they worked out a system. It was crudeness and inefficiency incarnate in comparison with the Z9M9Z, but it was so much better than anything previously known to Boskonian's High Command that everyone was delighted. Even the suspicious and cynical Fossten began to entertain some doubts as to the infallibility of his own judgment.

And these doubts grew apace as the Tyrant drilled his Grand Fleet. He drove the personnel unmercifully, especially the operations officers; as relentlessly as he drove himself. He simply could not be satisfied, his ardor and lust for efficiency were insatiable. His reprimands were scathingly accurate; officer after officer he demoted bitingly during ever more complicated, ever more inhumanly difficult maneuvers; until finally he had what were unquestionably his best men in those supremely important positions. Then, one day:

"QX, Kim, come ahead—we're ready," Haynes Lensed him, briefly.

For Kinnison had been in

touch with the port admiral every day. He had learned long since that the prime minister could not detect a Lensed thought, particularly when the Lensman was wearing a thought-screen, as he did practically constantly; wherefore the strategists of the Patrol were as well

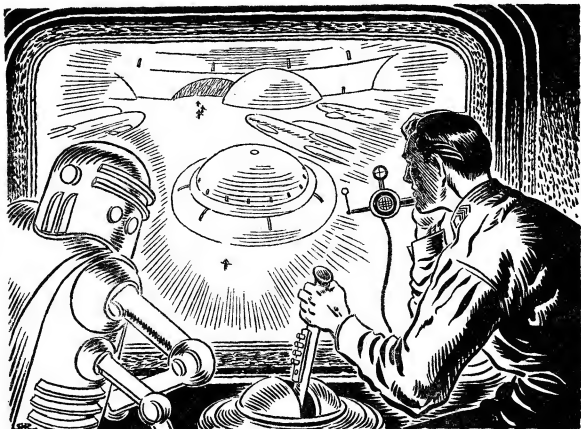
said little if anything as to the actual method of approach?"

The prime minister had indeed noticed that peculiar oversight, and said so. Here, undoubtedly, he thought, was the rub. Here was where Star A Star's minion would get in his dirty work.

"I have thought about it at

you full authority and let you handle the approach in any manner you please. I shall, of course, direct the actual battle, as in that I shall again be upon familiar ground."

The premier was flabbergasted. This was incredible. Gannel must really be working for Bos-



informed as was Kinnison himself of every move made by the Boskonians.

Then Kinnison called Fossten, and was staring glumly at nothing when the latter entered the room.

"Well, it would seem that we are about as nearly ready as we ever will be," the Tyrant brooded, pessimistically. "Have you any suggestions, criticisms, or other contributions to offer, of however minor a nature?"

"None whatever. You have done very well indeed."

"Unhhh," Gannel grunted, without enthusiasm. "You have observed, no doubt, that I have

length," Kinnison said, still in his brown study. "But I know enough to recognize and to admit my own limitations. I do know tactics and strategy, and thus far I have worked with only known implements toward known objectives. That condition, however, no longer exists. The simple fact is that I do not know enough about the possibilities, the techniques and the potentialities, the advantages and the disadvantages of the hyper-spatial tube as an avenue of approach to enable me to come to a defensible decision one way or the other. I have decided, therefore, that if you have any preference in the matter I will give

konian after all, to make such a decision as that. Still skeptical, unprepared for such a startling development as that one was, he temporized.

"The bad—the very bad—features of the approach via tube are two," he pondered aloud. "We have no means of knowing anything about what happens; and, since our previous such venture was a total failure, we must assume that, contrary to our plans and expectations, the enemy was not taken by surprise."

"Right," Kinnison concurred, tonelessly.

"Upon the other hand, an approach via open space, while

conducive to the preservation of our two lives, would be seen from afar and would certainly be met by an appropriate formation."

"Check," came emotionlessly noncommittal agreement.

"Haven't you the slightest bias, one way or the other?" Fossten demanded, incredulously.

"None whatever," the Tyrant was coldly matter-of-fact. "If I had had any such, I would have ordered the approach made in the fashion I preferred. Having none, I delegated authority to you. When I delegate authority I do so without reservations."

This was a stopper.

"Let it be open space, then," the prime minister finally decided.

"So be it." And so it was.

Each of the component flotillas of Grand Fleet made a flying trip to some nearby base, where each unit was serviced. Every item of mechanism and of equipment was checked and rechecked. Stores were replenished, and munitions—especially munitions. Then the mighty armada, the most frightfully powerful aggregation every to fly for Boskonian—the mightiest fleet ever assembled anywhere, according to the speeches of the politicians—remade its stupendous formation and set out for Klovian. And as it flew through space, shortly before contact was made with the Patrol's Grand Fleet, the premier called Kinnison into the control room.

"Gannel, I simply cannot make you out," he remarked, after studying him fixedly for five minutes. "You have offered no advice. You have not interfered with my handling of the Fleet in any way. Nevertheless, I still suspect you of treacherous intentions. I have been suspicious of you from the first—"

"With no grounds whatever for your suspicions," Kinnison reminded him, coldly.

"What? With all the reason

possible!" Fossten declared. "Have you not steadily refused to bare your mind to me?"

"Certainly. Why not? Do we have to go over that again? Just how do you figure that I should so trust any being who refuses to reveal even his true shape to me?"

"That is for your own good," the prime minister stated. "I have not wanted to tell you this, but the truth is that no human being can perceive my true self and retain his sanity."

"I'll take a chance on that," Kinnison replied, skeptically. "I've seen a lot of monstrous entities in my time and I haven't conked out yet."

"There speaks the sheer folly of callow youth; the rashness of an ignorance so abysmal as to be possible only to one of your ephemeral race." The voice deepened, became more resonant. Kinnison, staring into those inscrutable eyes which he knew did not in fact exist, thrilled forebodingly; the timbre and the overtones of that voice reminded him very disquietingly of something which he could not at the moment recall to mind. "I forbear to discipline you, not from any doubt as to my ability to do so, as you suppose, but because of the sure knowledge that breaking you by force will destroy your usefulness. On the other hand, it is certain that if you co-operate with me willingly you will be the strongest, ablest leader that Boskonian has ever had. Think well upon these matters, O Tyrant."

"I will," the Lensman agreed, more seriously than he had intended. "But just what, if anything, has led you to believe that I am not working to the fullest and best of my ability for Boskonian?"

"Everything." Fossten summarized. "I have been able to find no flaw in your actions, but those actions do not fit in with your unexplained and apparently unexplainable reticence in letting me perceive for myself ex-

actly what is in your mind. Furthermore, you have never even troubled to deny accusations that you are in fact playing a far deeper game than you appear upon the surface to be playing."

"That reticence I have explained over and over as an overmastering repugnance—call it a phobia if you like," Kinnison rejoined, wearily. "I simply can't and won't. Since you cannot understand that, denials would have been entirely useless. Would you believe anything that I could possibly say—that I would swear to by everything I hold sacred—whether it was that I am wholeheartedly loyal to Boskonian or that I am in fact Star A Star himself?"

"Probably not," came the measured reply. "No, certainly not. Men—especially men such as you, bent ruthlessly upon the acquisition of power—are liars . . . ah, could it, by any chance, be that the reason for your intractability is that you have the effrontery to entertain some insane idea of supplanting ME?"

Kinnison jumped mentally. That tore it—that was a flare-lit tip-off. This man—this thing—being—entity—whatever he really was—instead of being just another Boskonian big shot, must be the clear quill—the real McCoy—BOSKONE HIMSELF! The end of the job must be right here! This was—must be—the real Brain for whom he had been searching so long; here within three feet of him sat the creature with whom he had been longing so fervently to come to grips!

"The reason is as I have said," the Tellurian stated, quietly. "I will attempt to make no secret, however, of a fact which you must already have deduced; that if and when it becomes apparent that you have any authority above or beyond that of the Tyrant of Thrale I shall take it away from you. Why not? Now that I have come so far,

why should I not aspire to sit in the highest seat of all?"

"Hrrumpphhh!" the monster—Kinnison could no longer think of him as Fossten, or as the prime minister, or as anything even remotely human—snorted with such utter, such searing contempt that even the Lensman's burly spirit quailed. "As well might you attempt to pit your vaunted physical strength against that of the heaviest forging ram ever built. Now, youth, have done. The time for temporizing is past. As I have said, I desire to spare you, as I wish you to rule this part of Boskonian as my viceroy. Know, however, that you are in no sense essential, and that if you do not yield your mind fully to mine, here and now, before this coming battle is joined, you most certainly die." At the grim finality, the calmly assured certainty of the pronouncement, a quick chill struck into the Gray Lensman's vitals.

This thing who called himself Fossten—who or what was he? What was it that he reminded him of? He thought and talked like . . . like . . . MENTOR! But it *couldn't* be an Arisian, possibly—that wouldn't make sense. But then, it didn't make any kind of sense, anyway, any way you looked at it. Whoever he was, he had plenty of jets—jets enough to lift a freighter off of the north pole of Valeria. And by the same token, his present line of talk didn't make sense, either—there must be some good reason why he hadn't made a real pass at him long before this, instead of arguing with him so patiently. What could it be? Oh, that was it, of course. He needed only a few minutes more, now; he could probably stall off the final showdown that long by crawling a bit—much as it grieved him to let this zwilnik think that he was licking his boots.

"Your forbearance is appreciated, sire." At the apparently unconscious tribute to superior-

ity and at the fact that the hitherto completely self-possessed Tyrant got up and began to pace nervously up and down the control room, the prime minister's austere mien softened appreciably. "It is, however, passing strange. It is not quite in character; it does not check quite satisfactorily with the facts thus far revealed. I may, perhaps, as you say, be stupid. I may be overestimating flagrantly my own abilities. To one of my temperament, however, to surrender in such a craven fashion as you demand comes hard—extremely, almost unbearably hard. It would be easier, I think, if your supremacy would condescend to reveal his true identity, thereby making plainly evident and manifest that which at present must be left to unsupported words, surmise, and not too much conviction."

"But I told you, and now tell you again, that for you to look upon my real form is to lose your reason!" the creature rasped.

"What do you care, really, whether or not I remain sane?" Kinnison shot his bolt at last, in what he hoped would be taken for a last resurgence of spirit. His time was about up. In less than one minute now the screens of scout cruisers would be in engagement, and either he or the prime minister or both would be expected to be devoting every cell of their brains to the all-important battle of giants. And in that very nick of time he would have to cripple the Bergenholsms and thus inert the flagship. "Could it be that the real reason for your otherwise inexplicable forbearance is that you must know how my mind became as it now is, and that the breaking down of my barriers by mental force will destroy the knowledge which you, for your own security, must have?"

This was the blowoff. Kinnison still paced the room, but his

pacings took him nearer and ever nearer to a certain control panel. Behind his thought-screen, which he could not now trust for a moment and which he knew starkly would be worse than useless in what was coming, he mustered every iota of his tremendous force of mind and of will. Only seconds now. His left hand, thrust into his breeches pocket, grasped the cigarette case within which reposed his Lens. His right arm and hand were tensely ready to draw and to fire his ray gun.

"Die, then! I should have known from the sheer perfection of your work that you were what you really are—Star A Star!"

The mental blast came ahead even of the first word, but the Gray Lensman, supremely ready, was already in action. One quick thrust of his chin flicked off the thought-screen. The shielded cigarette case flew open, his more-than-half-alive Lens blazed again upon his massive wrist. His weapon leaped out of its scabbard, flaming destruction as it came—a ravaging tongue of incandescent fury which licked out of existence in the twinkling of an eye the Bergenholsms' control panels and the operators clustered before it. The vessel went inert—much work would have to be done before the Boskonian flagship could again fly free!

These matters required only a fraction of a second. Well indeed it was that they did not take longer, for the ever-mounting fury of the prime minister's attack soon necessitated more—much more—than an automatic block, however capable. But Kimball Kinnison, Gray Lensman, Lensman of Lensmen, had more—ever so much more—than that!

He whirled, lips thinned over tight-set teeth in a savage fighting grin. Now he'd see what this zwilnik was and what he had. No fear, no doubt of the

outcome, entered his mind. He had suffered such punishment as few minds have ever endured in learning to ward off everything that Mentor, one of the mightiest intellects of this or of any other universe, could send; but through that suffering he had learned. This unknown entity was an able operator, of course, but he certainly had a thick, hard crust to think that he could rub *him* out!

So thinking, the Lensman hurled a bolt of his own, a blast of power sufficient to have slain a dozen men—and, amazingly, saw it rebound harmlessly from the premier's hard-held block.

Which of the two combatants was the more surprised it would be hard to say; each had considered his own mind impregnable and invincible. Now, as the prime minister perceived how astoundingly capable a foe he faced, he sought to summon help by ordering the officers on duty to blast their Tyrant down. In vain. For, even so early in that ultimately lethal struggle, he could not spare enough of his mind to control effectively any outsider; and in a matter of seconds there were no minds left throughout that entire room in any condition to be controlled.

For the first reverberations, the ricochets, the spent forces of the monster's attack against Kinnison's shield had wrought grievously among the mentalities of the innocent bystanders. Those forces were deadly—deadly beyond telling—so inimical to and destructive of intelligence that even their transformation products affected tremendously the nervous systems of all within range.

Then, instants later, the spectacle of the detested and searingly feared Lens scintillating balefully upon the wrist of their own ruler was an utterly inexpressible shock. Some of the officers tried then to go for their guns, but it was already too late; their shaking, trembling, almost

paralyzed muscles could not be forced to function.

An even worse shock followed almost instantly, for the prime minister, under the incredibly mounting intensity of the Lensman's poignant thrusts, found it necessary to concentrate his every iota of power upon his opponent. This revealed to all beholders, except Kinnison, what their prime minister actually was—and he had not been very much wrong in saying that that sight would drive any human being mad. Most of the Boskonians did go mad, then and there; but they did not rush about nor scream. They could not move purposefully, but only twitched and writhed horribly as they lay grotesquely asprawl. They could not scream or shriek, but only mouthed and mumbled meaningless burlblings.

And ever higher, ever more brilliant flamed the Lens as Kinnison threw all of his prodigious will power, all of his tremendous, indomitable drive, through it and against the incredibly resistant thing to which he was opposed. This was the supreme, the climactic battle of his life thus far. Ether and subether seethed and boiled invisibly under the frightful violence of the forces there unleashed. The men in the control room lay still; all life rived away. Now death spread throughout the confines of the vast spaceship.

Indomitably, relentlessly, the Gray Lensman held his offense upon that unimaginably high level; his Lens flooding the room with intensely coruscant polychromatic light. He did not know, then or ever, how he did it. It seemed as though his Lens, of its own volition in this time of ultimate need, reached out into unguessable continua and drew therefrom an added, an extra something. But, however it was done, Kinnison and his Lens managed to hold; and under the appalling, the never-ceasing concentration of force

the monster's defenses began gradually to weaken and to go down.

Then sketchily, patchily, there was revealed to Kinnison's sight and sense of perception a . . . a . . . a BRAIN!

There was a body, of sorts, of course—a peculiarly neckless body designed solely to support that gigantic, thin-skulled head. There were certain appendages or limbs, and suchlike appurtenances and incidentalia to nourishment, locomotion, and the like; but to all intents and purposes the thing was simply and solely a brain.

Kinnison knew starkly that it was an Arisian—it looked enough like old Mentor to be his twin brother. He would have been stunned, except for the fact that he was far too intent upon victory to let any circumstance, however distracting, affect his purpose. His concentration upon the task in hand was so complete that nothing—literally nothing whatever—could sway him from it.

The monster's well of illusion went down completely and then, step by short, hard, jerky step, Kinnison advanced. Close enough, he selected certain areas upon the sides of that enormous head and with big, hard, open hands he went viciously to work. Right, left, right, left, he slapped those bulging temples brutally, rocking monstrous head and repulsive body from side to side, pendulumlike, with every stunning blow.

His fist would have smashed that thin skull, would perhaps have buried itself deep within the soft tissues of that tremendous brain; and Kinnison did not want to kill his inexplicable opponent—yet. He had to find out first what this was all about.

He knew that he was due to black out as soon as he let go, and he intended to addle the thing's senses so thoroughly that he would be completely out of

action for hours—long enough to give the Lensman plenty of time in which to recover his strength.

He did so.

Kinnison did not quite faint. He did, however, have to lie down flat upon the floor; as limp, almost, as the dead men so thickly strewn about.

And thus, while the two immense Grand Fleets met in battle, Boskonian's flagship hung inert and silent in space afar; manned by fifteen hundred corpses, one unconscious Brain, and one utterly exhausted Gray Lensman.

XXI.

Boskonian's Grand Fleet was, as has been said, enormous. It was not as large as the Patrol in total number of ships, since no ordinary brain nor any possible combination of such brains could have co-ordinated and directed the activities of so vast a number of units. Its center was, however, heavier; composed of a number and a tonnage of super-maulers which made it self-evidently irresistible.

In his training of his Grand Fleet operations staff, Kinnison had not overlooked a single bet, had not made a single move which by its falsity might have excited Premier Fossten's all-too-ready suspicions. They had handled Grand Fleet as a whole in vast, slow maneuvers; plainly the only kind possible to so tremendous a force. Kinnison and his officers had in turn harshly and thoroughly instructed the subfleet commanders in the various arts and maneuvers of conquering units equal to or smaller than their own.

That was all; and to the Boskonians, even to Fossten, that had been enough. That was obviously all that was possible. Not one of them realized that Tyrant Gannel very carefully avoided any suggestion that there might be any intermediate tactics, such as that of three or

four hundred subfleets, too widely spread in space and too numerous to be handled by any ordinary mind or apparatus to inglobe and to wipe out simultaneously perhaps fifty subfleets whose commanders were not even in communication with each other. This technique was as yet the exclusive property of the Patrol and the Z9M9Z.

And in that exact operation, a closed book to the zwiniiks, lay—supposedly and tactically—the Patrol's overwhelming advantage. For Haynes, through his four highly specialized Rigellian Lensmen and thence through the two hundred Rigellian operator-computers, could perform maneuvers upon any intermediate scale he pleased. He could handle his whole vast Grand Fleet and its every component part—he supposed—as effectively, as rapidly, and almost as easily as a skilled chess player handles his pieces and his pawns. Neither Kinnison nor Haynes can be blamed, however, for the fact that their suppositions were somewhat in error; it would have taken an Arisian to deduce that this battle was not to be fought exactly as they had planned it.

Haynes had another enormous advantage in knowing the exact number, rating, disposition, course, and velocity of every main unit of the aggregation to which he was opposed. And third, he had the sunbeam, concerning which the enemy knew nothing at all and which was now in good working order.

It is needless to say that the sunbeam generators were already set to hurl that shaft of irresistible destruction along the precisely correct line, or that Haynes' Grand Fleet formation had been made with that particular weapon in mind. It was not an orthodox formation; in any ordinary space battle it would have been sheerly suicidal. But the port admiral, knowing for the first time in his career every pertinent fact con-

cerning his foe, knew exactly what he was doing.

His fleet, instead of driving ahead to meet the enemy, remained inert and practically motionless well within the limits of Klovian's solar system. His heavy stuff, instead of being massed at the center, was arranged in a vast ring. There was no center except for a concealing screen of heavy cruisers.

When the far-flung screens of scout cruisers came into engagement, then, the Patrol scouts near the central line did not fight, but sped lightly aside. So did the light and heavy cruisers and the battleships. The whole vast center of the Boskonians drove onward, unopposed, into—nothing.

Nevertheless they kept on driving. They could, without orders, do nothing else, and no orders were forthcoming from the flagship. Commanders tried to get in touch with Grand Fleet operations, but could not; and, in failing, kept on under their original instructions. They had, they could have, no suspicion that any minion of the Patrol was back of what had happened to their admirals. The flagship had been in the safest possible position and no attack had as yet been made. They probably wondered futilely as to what kind of a mechanical breakdown could have immobilized and completely silenced their High Command, but that was—strictly—none of their business. They had had orders, very definite orders, that no matter what happened they were to go on to Klovian and to destroy it. Thus, however wondering, they kept on. They were on the line. They would hold to it. They would blast out of existence anything and everything which might attempt to bar their way. They would reach Klovian and they would reduce it to its component atoms.

Unresisted, then, the Boskonian center bored ahead into nothing, until Haynes, through

his Rigellians, perceived that it had come far enough. Then Klovian's brilliantly shining sun darkened almost to the point of going out entirely. Along the line of centers, through the space so peculiarly empty of Patrol ships, there came into being the sunbeam—a bar of quasi-solid lightning into which there had been compressed all the energy of well over four million tons *per second* of disintegrating matter.

Scouts and cruisers caught in that ravaging beam flashed briefly, like sparks flying from a forge, and vanished. Battleships and superdreadnoughts the same. Even the solid war head of fortresses and maulers was utterly helpless. No screen has ever been designed capable of handling that hellish load; no possible or conceivable substance can withstand, save momentarily, the ardor of a sunbeam. For the energy liberated by the total annihilation of four million tons *per second* of matter is in fact as irresistible as it is incomprehensible.

The armed and armored planets did not disappear. They contained too much sheer mass for even that inconceivably powerful beam to volatilize in any small number of seconds. Their surfaces, however, melted and boiled. The controlling and powering mechanisms fused into useless pools of molten metal. Inert, then, inactive and powerless, they no longer constituted threats to Klovian's well-being.

The negaspheres also were rendered ineffective by the beam. Their antimasses were not decreased of course—in fact, they were probably increased a trifle by the fervor of the treatment—but, with the controlling superstructures volatilized away, they became more of menace to the Boskonian forces than to those of Civilization. Indeed, several of the terrible things were drawn into contact with ruined planets. Then negasphere and planet consumed each other, flooding all nearby space with

intensely hard and horribly lethal radiation.

The beam winked out, Klovian's sun flashed on. The sunbeam was—and is—clumsy, unwieldy, quite definitely not rapidly maneuverable. But it had done its work; now the component parts of Civilization's Grand Fleet started in to do theirs.

Since the Battle of Klovian—it was and still is called that, as though it were the only battle which that warlike planet has ever seen—has been fought over in the classrooms of practically every civilized planet of two galaxies, it would be redundant to discuss it in detail here.

It was, of course, unique. No other battle like it has ever been fought, either before or since—and let us hope that no other such ever will be. It is studied by strategists, who have so far offered many thousands of widely variant profundities as to what Port Admiral Haynes should have done. Its profound emotional appeal, however, lies only and sheerly in its unorthodoxy. For in the technically proper space battle there is no hand-to-hand fighting, no purely personal heroism, no individual deeds of valor. It is a thing of logic and mathematics and of science, the massing of superior fire power against a well-chosen succession of weaker opponents. When the screens of a spaceship go down that ship is done, her personnel only memories.

But here how different! With the supposed breakdown of the lines of communication to the flagship, the subfleets carried on in formation. With the destruction of the entire center, however, all semblance of organization or of co-operation was lost. Every staff officer knew that no more orders would emanate from the flagship. Each knew chillingly that there could be neither escape nor succor. The captain of each vessel, thoroughly convinced that he knew

vastly more than did his fleet commander, proceeded to run the war to suit himself. The outcome was fantastic, so utterly bizarre that the *Z9M9Z* and her trained co-ordinating officers were useless. Science and tactics and the million lines of communication could do nothing against a foe who insisted upon making it a ship-to-ship, yes, man-to-man affair!

The result was the most gigantic dog fight in the annals of military science. Ships—Civilization's perhaps as eagerly as Boskonian's—cut off their projectors, cut off their screens, the better to ram, to board, to come to grips personally with the enemy. Scout to scout, cruiser to cruiser, battleship to battleship, the insane contagion spread. Haynes and his staff men swore fulminantly, the Rigellians hurled out orders, but those orders simply could not be obeyed. The dog fight spread until it filled a good sixth of Klovian's entire solar system.

Board and storm! Armor—DeLameters—axes! The mad blood lust of hand-to-hand combat, the insensately horrible savagery of our pirate forebears, multiplied by millions and spread out to fill a million million cubic miles of space!

Haynes and his fellows wept unashamed as they stood by helpless, unable to avoid or to prevent the slaughter of so many splendid men, the gutting of so many magnificent ships. It was ghastly—it was appalling—it was WAR!

And far from this scene of turmoil and of butchery lay Boskonian's great flagship, and in her control room Kinnison began to recover his strength. He sat up groggily. He gave his throbbing head a couple of tentative shakes. Nothing rattled. Good—he was QX, he guessed, even if he did feel as limp as nine wet dish rags. Even his Lens felt weak; its usually refulgent radiance was sluggish, wan, and dim.

This had taken plenty out of them, he reflected soberly; but he was mighty lucky to be alive. But he'd better get his batteries charged. He couldn't drive a thought across the room, the shape he was in now, and he knew of only one brain in the Universe capable of straightening out *this* mess.

After assuring himself that the highly inimical brain would not be able to function normally for a long time to come, the Lensman made his way to the galley. He could walk without staggering already—fine! There he fried himself a big, thick, rare steak—his never-failing remedy for all the ills to which flesh is heir—and brewed a pot of the coffeelike beverage affected by Thralians; making it viciously, almost corrosively strong. And as he ate and drank, his head cleared magically. Strength flowed back into him in waves. His Lens flamed into its normal splendor. He stretched prodigiously; inhaled gratefully a few deep breaths. He was QX.

Back in the control room, after again checking up on the still quiescent brain—he wouldn't trust this Fossten as far as he could spit—he hurled a thought to far-distant Arisia and to Mentor, its ancient sage.

"What's an Arisian doing in this Second Galaxy, working *against* the Patrol? Just what is somebody trying to pull off?" he demanded heatedly, and in a second of flashing thought reported what had happened.

"Truly, Kinnison of Tellus, my mind is far from capable," the deeply resonant, slow simulacrum of a voice resounded within the Lensman's brain. The Arisian never hurried; nothing whatever, apparently, not even such a cataclysmic upheaval as this, could fluster or excite him. "It does not seem to be in accord with the visualization of the Cosmic All which I hold at the moment that any one of my fellows is in fact either in the Second Galaxy or acting antagonis-

tically to the Galactic Patrol. It is, however, a truism that hypotheses, theories, and visualizations must fit themselves to known or observed facts, and even your immature mind is eminently able to report truly upon actualities. But before I attempt to revise my Cosmos to conform to this admittedly peculiar circumstance, we must be very sure indeed of our facts. Are you certain, youth, that the being whom you have beaten into unconsciousness is actually an Arisian?"

"Certainly I'm certain!" Kinnison snapped. "Why, he's enough like you to have been hatched out of half of the same egg. Take a look!"—and he knew that the Arisian was studying every external and internal detail, part, and organ of the erstwhile prime minister of Thrale.

"Ah, it would appear to be an Arisian, at that, youth," Mentor finally agreed. "I do not know him, however, and I have been quite confident that I am acquainted with each member of my race. He is old, as you said—as old, perhaps, as I am. This will require some little thought—allow me therefore, please, a moment of contemplation." The Arisian fell silent, presently to resume:

"I have it now. Many millions of your years ago—so long ago that it was with some little difficulty that I recalled it to mind—when I was scarcely more than an infant, a youth but little older than myself disappeared from Arisia. It was determined then that he was aberrant—insane—and since only an unusually capable mind can predict truly the illogical workings of a diseased and disordered mind for even one year in advance, it is not surprising that in my visualization that unbalanced youth perished long ago. Nor is it surprising that I do not recognize him in the creature before you, for at the time of vanishment no permanent pattern had as yet been formed."

"Well, aren't you surprised that I could get the best of him?" Kinnison asked naively. He had really expected that Mentor would compliment him upon his prowess, he figured that he had earned a few pats on the back; but here the old fellow was mooning about his own mind and his own philosophy, and acting as though knocking off an Arisian were something to be taken in stride. And it wasn't, by half!

"No," came the flatly definite reply. "You have a force of will, a totalizable and concentrable power, a mental and psychological drive that no mind in the macrocosmic universe can break. I perceived those latent capabilities when I assembled your Lens, and developed them when I developed you. It was their presence which made it certain that you would return here for that development; they made you what you intrinsically are."

"QX, then—skip it. What shall I do with him? It's going to be a real job of work, any way you figure it, for us to keep him alive and harmless until we can get him back there to Arisia."

"We do not want him here," Mentor replied without emotion. "He has no present or future place within our society. Nor, however I consider the matter, can I perceive that he has any longer a permissible or condonable place in the all-inclusive Scheme of Things. He has served his purpose. Destroy him, therefore, forthwith, before he so much as recovers consciousness; lest much and grievous harm befall you."

"I believe you, chief. You chirped it then, if anybody ever did. Thanks"—and communication ceased.

The Lensman's ray gun flamed briefly and what was mortal of Fossten the prime minister became a smoking, shapeless heap.

Kinnison noticed then that a call light was shining brightly upon a communicator panel.

This thing must have taken longer than he had supposed. The battle must be over, otherwise all space would still be filled with interference through which no long-range communicator beam could have been driven. Or—could Boskonian have— No, that was unthinkable. The Patrol must have won. This must be Haynes, calling him—

It was. The frightful Battle of Klovian was over. While many of the Patrol ships had yielded, either by choice or by necessity, to the Boskonians' challenge, most of them had not. And the majority of those who did so yield, came out victorious.

While fighting in any kind of recognized formation against such myriads of independently operating, widely spaced individual ships was, of course, out of the question, Haynes and his aids had been able to work out a technique of sorts. General orders were sent out to subfleet commanders, who in turn relayed them to the individual captains by means of visual beams. Single vessels, then, locked to equal or inferior craft—avoiding carefully anything

larger than themselves—with tractor zones and held grimly on. If they could defeat the foe, QX. If not, they hung on; until shortly one of the Patrol's maulers—who had no opposition of their own class to face—would come lumbering up. And when the dreadful primary batteries of one of *those* things cut loose that was, very conclusively, that.

Thus Boskonian's mighty fleet vanished from the skies.

The all-pervading interference was cut off and Port Admiral Haynes, brushing aside a communications officer, sat down at his board and punched a call. Time after time he punched it. Finally he shoved it in and left it in; and as he stared, minute after minute, into the coldly unresponsive plate his face grew gray and old.

With a long, slightly tremulous sigh he was turning away from the plate when suddenly it lighted up to show the smiling, deeply space-tanned face of the one for whom he had just about given up hope.

"Thank God!" The commander in chief's exclamation was wholly reverent; his strained old

face lost twenty years in half that many seconds. "Thank God you are safe. You did it, then?"

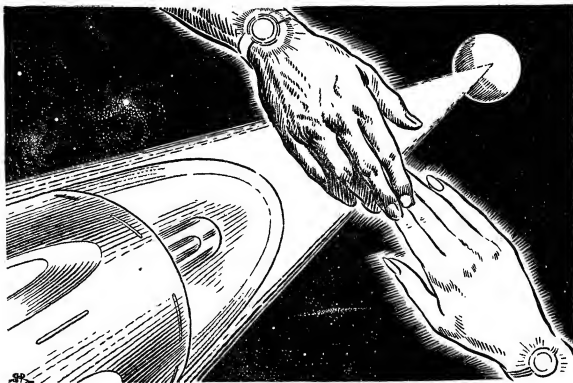
"I managed it, Pop, but just by the skin of my teeth—I didn't have half a jet to spare. It was Old Man Boskone himself, in person. And you?"

"Clean-up—one hundred point oh, oh, oh, oh percent."

"Fine business!" Kinnison exulted. "Everything's on the exact center of the green, then—come on!"

And Civilization's Grand Fleet went.

The Z9M9Z flashed up to visibility, inerted, and with furious driving blasts full ablaze, matched her intrinsic velocity to that of the Boskonian flagship—the only Boskonian vessel remaining in that whole vast volume of space. Tractors and pressors were locked on and balanced. Flexible—or, more accurately, not ultimately rigid—connecting tubes were pushed out and sealed. Hundreds, yes—thousands, of men—men in full Thralian uniform—strode through those tubes and into the Thralian ship. The *Directrix*



unhooked and a battleship took her place. Time after time the maneuver was repeated, until it seemed as though Kinnison's vessel, huge as she was, could not possibly carry the numbers of men who marched aboard.

Those men were all human or approximately so—nearly enough human, at least, to pass as Thralians under a casual inspection. More peculiarly, that army contained an astounding number of Lensmen. So many Lensmen, it is certain, had never before been gathered together into so small a space. But the fact that they were Lensmen was not apparent; their Lenses were not upon their wrists, but were high upon their arms, concealed from even the most prying eyes within the heavy sleeves of their tunics.

Then the captured flagship, her Bergenholms again at work, the *Z9M9Z*, and the battleships which had already assumed the intrinsic velocity possessed originally by the Boskonians, spread out widely in space. Each surrounded itself with a globe of intensely vivid red light. Orders as to course and power flashed out. The word was given and spectacular fire flooded space as that vast host of ships, guided by those red beacons and by the ever-watchful observers of the *Directrix*, matched in one prodigious and beautiful maneuver its intrinsic velocity to theirs.

Finally, all the intrinsics in exact agreement, Grand Fleet formation was remade. The term "remade" is used advisedly, since this was not to be a battle formation. For Traska Gannel had long since sent a message to his capital; a terse and truthful message which was, nevertheless, utterly misleading. It was:

"My forces have won, my enemy has been wiped out to the last man. Prepare for a two-world broadcast, to cover both Thrale and Onlo, at hour ten to day of my palace time."

The formation, then, was not

one of warfare, but of boasting triumph. It was the consciously proud formation of a Grand Fleet which, secure in the knowledge that it has blasted out of the ether everything which can threaten it, returns victoriously to its Prime Base to receive as its just due the plaudits and the acclaim of the populace.

Well in the van—alone in the van, in fact, and strutting—was the flagship. She, having originated upon Thrale and having been built specifically for a flagship, would be recognized at sight. Back of her came, in gigantic co-axial cones, the subfleets; arranged now not class by class of ships, but world by world of origin. One mauler, perhaps, or two; from four or five to a dozen or more battleships; an appropriate number of cruisers and of scouts; all flying along together in a tight little group.

But not all of the Patrol's armada was in that formation. It would have been very poor technique indeed to have had Boskonian's Grand Fleet come back to home ether forty percent larger than it had set out. Besides, the *Directrix* simply could not be allowed to come within detector range of any Boskonian lookout. She was utterly unlike any other vessel ever to fly: she would not, perhaps, be recognized for what she really was, but it would be evident to the most casual observer that she was not and could not be of Thrale or of Boskonian.

The *Z9M9Z*, then, hung back—far back—escorted and enveloped by the great number of warships which could not be made to fit into the roll call of the Tyrant's original Grand Fleet.

The subfleet which was originally from Thrale could land without any trouble; without arousing any suspicion. Boskonian and Patrol designs were not identical, of course; but the requirements of sound engineer-

ing dictated that externals should be essentially the same. The individual ships now bore the correct identifying symbols and insignia. The minor differences could not be perceived until after the vessels had actually landed, and that would be—for the Thralians—entirely too late.

Thralian hour ten arrived. Kinnison, after a long, minutely searching inspection of the entire room, became again in every millimeter Traska Gannel, the Tyrant of Thrale. He waved a hand. The scanner before him glowed: for a full minute he stared into it haughtily, to give his teeming millions of minions ample opportunity to gaze upon the inspiring countenance of His Supremacy the Feared.

He knew that the scanner revealed clearly every detail of the control room behind him, but everything there was QX. There was not even a chance that some person would fail to recognize a familiar face at any post, for not a single face except his own would be visible. Not a head back of him would turn, not even a rear quarter profile would show: it would be *lese majeste* of the most intolerable for any face, however inconspicuous, to share the limelight with that of the Tyrant of Thrale while his supremacy was addressing his subjects. Serenely and assuredly enough, then, Kinnison as Tyrant Gannel spoke:

"My people! As you have already been told, my forces have won the complete victory which my foresight and my leadership made inevitable. This milestone of progress is merely a repetition upon a grander scale of those which I have already accomplished upon a somewhat smaller; as extension and a continuation of the carefully considered procedure by virtue of which I shall see to it that My Great Plan succeeds.

"As one item in that scheduled procedure I removed the weak-

ling Alcon, and in the stead of his rule of oppression, short-sightedness, corruption, favoritism, and greed, I substituted my beneficent regime of fair play, of mutual co-operation for the good of all.

"I have now accomplished the next major step in my program; the complete destruction of the armed forces which might be, which would be employed to hamper and to nullify the development and the fruition of My Plan.

"I shall take the next step immediately upon my return to my palace. There is no need to inform you now as to the details of what I have in mind. In broad, however, it pleases me to inform you that, having crushed all opposition, I am now able to institute and shall proceed at once to institute certain changes in policy, in administration, and in jurisdiction. I assure you that all of these changes will be, ultimately for the best good of all save the enemies of society.

"I caution you therefore to co-operate fully and willingly with my officers who may shortly come among you with instructions; some of these, perhaps, of a nature not hitherto promulgated upon Thrale. Those of you who do so co-operate will live and will prosper; you who do not will die in the slowest, most hideous fashions which hundreds of generations of Thralian torturers have been able to devise."

XXII.

Up to the present, Kinnison's revolution, his self-advancement into the dictatorship, had been perfectly normal; in perfect accordance with the best tenets of Boskonian etiquette. While it would be idle to contend that any of the others of the High Command really approved of it—each wanted intensely that high place for himself—none of them had been strong enough at the moment to challenge the

usurper effectively and all of them knew that an ineffective challenge would mean certain death. Wherefore each perforce bided his time. Gannel would slip, Gannel would become lax or overconfident—and that would be the end of Gannel.

They were, however, loyal in their way to Boskonian. They were very much in favor of the rule of the strong and the ruthless. They believed implicitly that might made right. They themselves bowed the knee to anyone strong enough to command such servility from them; in turn they enforced brutally an even more degrading slavishness from those over whom they held in practice, if not at law, the power of life and death.

Thus Kinnison knew that he could handle his cabinet easily enough as long as he could make them believe that he was a Boskonian. There was, there could be, no real unity among them under those conditions; each would be fighting his fellows as well as working to overthrow His Supremacy the Tyrant. But they all hated the Patrol and all that it stood for with a whole-hearted fervor which no one adherent to Civilization can really appreciate. Hence at the first sign that Gannel might be in league with the Patrol they would combine forces instantly against him; automatically there would go into effect a tacit agreement to kill him first and then, later, to fight it out among themselves for the prize of the Tyranny.

And that combined opposition would be a formidable one indeed. Those men were really able. They were as clever and as shrewd and as smart and as subtle as they were hard. They were masters of intrigue; they simply could not be fooled. And if their united word went down the line that Traska Gannel was in fact a traitor to Boskonian, an upheaval would ensue which would throw into the shade the bloodiest revolutions of all his-

tory. Everything would be destroyed.

Nor could the Lensman hurl the metal of the Patrol against Thrale in direct frontal attack. Not only was it immensely strong, but also there were those priceless records, without which it might very well be the work of generations for the Patrol to secure the information which it must, for its own security, have.

No. Kinnison, having started near the bottom and worked up, must now begin all over again at the top and work down; and he must be very, very sure that no alarm was given until at too late a time for the alarmed ones to do anything of harm to the Lensman's cause. He didn't know whether he had jets enough to swing the load or not—a lot depended on whether or not he could civilize those twelve devils of his—but the scheme that the psychologists had worked out was a honey and he would certainly give it the good old college try.

Thus Grand Fleet slowed down, and, with the flagship just out of range of the capital's terrific offensive weapons, it stopped. Half a dozen maulers, towing a blackly undetectable, imperceptible object, came up and stopped. The Tyrant called, from the safety of his control room, a conference of his cabinet in the council chamber.

"While I have not been gone very long in point of days," he addressed them smoothly, via plate, "and while I, of course, trust each and every one of you, there are certain matters which must be made clear before I attempt to land. None of you has, by any possible chance, made any effort to lay a trap for me, or anything of the kind?" There may have been a trace of irony in the speaker's voice.

They assured him, one and all, that they had not had the slightest idea of even considering such a thing.

"It is well. None of you have

discovered, then, that by changing locks and combinations, and by destroying or removing certain inconspicuous but essential mechanisms of an extremely complicated nature—and perhaps substituting others—I made it quite definitely impossible for any one or all of you to render this planet inertialess. I have brought back with me a nega-sphere of planetary antimass, which no power at your disposal can affect. It is here beside me in space; please study it attentively. It should not be necessary for me to inform you that there are countless other planets from which I can rule Boskonian quite as effectively as from Thrane; or that, while I do not relish the idea of destroying my home planet and everything upon it, I would not hesitate to do so if it became a matter of choice between that action and the loss of my life and my position."

They believed the statement. That was the eminently sensible thing to do. Any one of them would have done the same; hence they knew that Gannel would do exactly what he threatened—if he could. And as they studied Gannel's abysmally black ace of trumps they knew starkly that Gannel could. For they had found out, individually, that the Tyrant had so effectively sabotaged Thrane's Bergenholsms that they could not possibly be made operative until after his return. Consequently repairs had not been started—any such activity, they knew, would be a fatal mistake.

By outguessing and outmaneuvering the members of his cabinet Gannel had once more shown his fitness to rule. They accepted that fact with a good enough grace; indeed, they admired him all the more for the ability thus shown. No one of them had given himself away by any overt moves; they could wait. Gannel would slip yet—quite possibly even before he got back into his palace. So they

thought, not knowing that the Tyrant could read at will their most deeply hidden plans; and, so thinking, each one pledged anew in unreserved terms his fealty and his loyalty.

"I thank you, gentlemen." The boss did not, and the officers were pretty sure that he did not, believe a word of their protestations. "As loyal cabinet members, I will give you the honor of sitting in the front of those who welcome me home. You men and your guards will occupy the front boxes in the Royal Stand. With you and around you will be the entire palace personnel—I want no person, except the usual guards, inside the buildings or even within the grounds when I land. Back of these you will have arranged the Personal Troops and the Royal Guards. The remaining stands and all of the usual open ground will be for the common people—first come, first served.

"But one word of caution. You may wear your side arms, as usual. Bear in mind, however, that armor is neither usual nor a part of your full-dress uniform, and that any armored man or men in or near the concourse will be blasted by a needle ray before I land. Be advised also that I myself shall be wearing full armor. Furthermore, no vessel of the fleet will land until I, personally, from my private sanctum, order them to do so."

This situation was another poser; but it, too, they had to take. There was no way out of it, and it was still perfect Boskonian generalship. The welcoming arrangements were therefore made precisely as the Tyrant had directed.

The flagship settled toward ground, her under jets blasting unusually viciously because of her tremendous load; and as she descended Kinnison glanced briefly down at the familiar terrain. There was the immense space field, a dock-studded expanse of burned, scarred, pock-

marked concrete and steel. Midway of its extreme northern end, that nearest the palace, was the berth of the flagship, Dock No. 1. An eighth of a mile straight north from the dock—the minimum distance possible because of the terrific fury of the under jets—was the entrance to the palace grounds. At the northern end of the western side of the field, a good three-quarters of a mile from Dock No. 1 and somewhat more than that distance from the palace gates, were the Stands of Ceremony. That made the Lensman completely the master of the situation.

The flagship landed, her madly blasting jets died out. A car of state rolled grandly up. Air locks opened. Kinnison and his bodyguards seated themselves in the car. Helicopters appeared above the stands and above the massed crowds thronging the western approaches to the field; hovering, flitting slowly and watchfully about.

Then from the flagship there emerged an incredible number of armed and armored soldiers. One small column of these marched behind the slowly moving car of state, but by far the greater number went directly to and through the imposing portals of the palace grounds. The people in general, gathered there to see a major spectacle, thought nothing of these circumstances—who were they to wonder at what the Tyrant of Thrane might choose to do?—but to Gannel's Council of Advisers they were extremely disquieting departures from the norm. There was, however, nothing that they could do about them, away out there in the grandstand; and they knew with a stark certainty what those helicopters had orders to do in case of any uprising or commotion anywhere in the crowd.

The car rolled slowly along before the fenced-back, wildly cheering multitudes, with blaring bands and the columns of armored spacemen marching crisply, swingingly behind it.

There was nothing to indicate that those selected men were not Thralians; nothing whatever to hint that over a thousand of them were in fact Lensmen of the Galactic Patrol. And Kinnison, standing stiffly erect in his car, acknowledged gravely, with upraised right arm, the plaudits of his subjects.

The triumphal bus stopped in front of the most outthrust, the most ornate stand, and through loud-voiced amplifiers the Tyrant invited, as a signal honor, the twelve members of his Advisory Cabinet to ride with him in state to the palace. There were exactly twelve vacant seats in the great coach. The advisers would have to leave their bodyguards and ride alone with the Tyrant: even had there been room, it was unthinkable that any one else's personal killers could ride with the Presence. This was no honor, they knew chillingly, no matter what the mob might think—it looked much more like a death sentence. But what could they do? They glanced at their unarmored henchmen; then at the armor and the semiportables of Gannel's own heelers; then at the ranks of heavily armed and armored troopers; and finally at the 'copters now clustering thickly overhead, with the narrow snouts of needle-ray projectors very much in evidence.

They accepted.

It was in no quiet frame of mind, then, that they rode into the pretentious grounds of the palace. They felt no better when, as they entered the council chamber, they were seized and disarmed without a word having been spoken. And the world fairly dropped out from beneath them when Tyrant Gannel emerged from his armor with a Lens glowing upon his wrist. "Yes, I am a Lensman," he gravely informed the stupefied but unshrinking Boskonians. "That is why I know that all twelve of you tried while I was

gone to cut me down, in spite of all that I told you and all that you have seen me do. If it were still necessary for me to pose as Traska Gannel, I would have to kill you here and now for your treachery. That phase is, however, past.

"I am one of the Lensmen whose collective activities you have ascribed to 'the' Lensman or to Star A Star. All those others who came with me into the palace are Lensmen. All those outside are either Lensmen or tried and seasoned veterans of the Galactic Patrol. The Fleet surrounding this world is the Grand Fleet of that Patrol. The Boskonian force was destroyed *in toto*—every man and every ship except your flagship—before it reached Klovia. In short, the power of Boskonian is broken forever; Civilization is to rule henceforth throughout both galaxies.

"You are the twelve strongest, the twelve ablest men of the planet, perhaps of your whole dark culture. Will you help us to rule according to the principles of Civilization that which has been the Boskonian Empire, or will you die?"

The Thralians stiffened themselves rigidly against the expected blasts of death, but only one spoke. "We are fortunate at least, Lensman, in that you do not torture," he said coldly, his lips twisted in to a hard, defiant sneer.

"Good!" and the Lensman actually smiled. "I expected no less. With that solid bottom, all that is necessary is to wipe away a few of your misconceptions and misunderstandings, correct your viewpoints, and—"

"Do you think for a second that your therapists can fit us into the pattern of your Civilization?" the Boskonian spokesman demanded bitingly.

"I don't have to think, Lanion—I know," Kinnison assured him. "Take them away, fellows, and lock them up—you know

where. Everything will go ahead as scheduled."

And it did.

And while the mighty vessels of war landed upon the space-field and while the thronging Lensmen took over post after post in an ever-widening downward course, Kinnison led Worsel and Tregonsee to the cell in which the outspoken Thralian chieftain was confined.

"I do not know whether I can prevent you from operating upon me or not," Lanion of Thrale spoke harshly, "but I will certainly try. I have seen the pitiful, distorted wrecks left after such operations and I do not like them. Furthermore, I do not believe that any possible science can eradicate from my subconscious the fixed determination to kill myself the instant you release me. Therefore you had better kill me now, Lensman, and save your time and trouble."

"You are right, and wrong," Kinnison replied quietly. "It may very well be impossible to remove such a fixation." He knew that he could remove any such, but Lanion must not know it. Civilization needed those twelve hard, shrewd minds and he had no intention of allowing an inferiority complex to weaken their powers. "We do not, however, intend to operate, but only and simply to educate. You will not be unconscious at any time. You will be in full control of your own mind and you will know beyond peradventure that you are so in control. We shall engrave, in parallel with your own present knowledges of the culture of Boskonian, the equivalent or corresponding knowledges of Civilization."

They did so. It was not a short undertaking, nor an easy one; but it was thorough and it was finally done. Then Kinnison spoke.

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intelligences indeed. You know that we did not alter, did not even touch, any track of your original mind. Being fully *en rapport* with us, you know that we gave you as unprejudiced a concept of Civilization as we possibly could. Also, you have assimilated completely the new knowledge."

"That is all true," Lanion conceded. "Remarkable, but true. I was, and remained throughout, myself; I checked constantly to be sure of that. I can still kill myself at any moment I choose."

"Right." Kinnison did not smile, even mentally, at the unconscious alteration of intent. "The whole proposition can now be boiled down into one clear-cut question, to which you can formulate an equally clear-cut reply. Would you, Lanion, personally, prefer to keep on as you have been, working for personal power, or would you rather team up with others to work for the good of all?"

The Thralian thought for moments, and as he pondered an expression of consternation spread over his hard hewn face. "You mean actually—personally—apart from all consideration of your so-called altruism and your other sissyish weaknesses?" he demanded resolutely.

"Exactly," Kinnison assured him. "Which would you *rather* do? Which would you, personally, get the most good—the most fun—out of?"

The bitter conflict was plainly visible in Lanion's bronzed face; so was the direction in which it was going.

"Well . . . I'll . . . be . . . damned! You win, Lensman!" and the ex-Boskonian big shot held out his hand. Those were not his words, of course; but as nearly as Tellurian English can come to it, that is the exact sense of his final decision. And the same, or approximately the same, was the decision of each of his eleven fellows, each in his turn.

Thus it was, then, that Civili-

zation won over the twelve recruits who were so potentially instrumental in the bloodless conquest of Thrale, and who were later to be of such signal service throughout the Second Galaxy. For they knew Boskonian with a sure knowledge, from top to bottom and from side to side, in every aspect and ramification; they knew precisely where and when and how to work to secure the desired ends. And they worked—*how* they worked!—but space is lacking to go into any of their labors here.

Specialists gathered, of a hundred different sorts; and when, after peace and security had been gained, they began to attack the stupendous files of the Hall of Records, Kinnison finally yielded to Haynes' insistences and moved out to the *Z9M9Z*.

"It's about time, young fellow!" the admiral snapped. "I've gnawed my fingernails off just about to the elbow and I still haven't figured out how to crack Onlo. Have you got any ideas?"

"Thrale first," Kinnison suggested. "Everything QX here, you sure?"

"Absolutely," Haynes grunted. "As strongly held as Tellus or Klovian. Primaries, helices, supertractors, Bergenholms, sunbeam—everything. They don't need us here any longer, any more than a hen needs teeth. Grand Fleet is all set to go, but we haven't been able to work out a feasible plan of campaign. The best way would be not to use the Fleet at all, but a sunbeam—but we can't move the Sun and Thorndyke has not as yet succeeded in making it hold together that far. I don't suppose that we could use a negasphere?"

"I don't see how," Kinnison pondered. "Ever since we used it first they've been ready for it. I'd be inclined to wait and see what Nadreck works out. He's a wise old owl, that bird—what does he tell you?"

"Nothing. Nothing. flat." Haynes' smile was grimly

amused. "The fact that he is still 'investigating'—whatever that means—is all that he will tell me. Why don't you try him—you know him better than I do or ever will."

"It wouldn't do any harm," Kinnison agreed. "Nor good, either, probably. Funny egg, Nadreck. I'd tie fourteen of his arms into lover's knots if it'd make him give, but it wouldn't—he's a plenty tough number." Nevertheless he sent out a call, which was acknowledged instantly.

"Ah, Kinnison, greetings. I am even now on my way to Thrale and the *Directrix* to report on the investigation."

"You are? Fine!" Kinnison exclaimed. "How did you come out?"

"I did not—exactly—fail, but the work was very incompletely and very poorly done," Nadreck submitted, the while the Tellurian's mind felt very strongly the Palainian equivalent of a painful blush of shame. "My report of the affair will be put and will forever remain under Lensman's Seal."

"But what did you *do*?" both Tellurians demanded as one.

"I scarcely know how to confess to such blundering," and Nadreck actually squirmed. "Will you not permit me to leave my shame to the spool of record?"

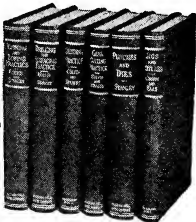
They would not, they informed him definitely.

"If you must have it, then, I yield. The plan was to make all of the armed forces upon Onlo destroy themselves. In theory it was sound and simple, but my execution was pitifully imperfect. My work was so poorly done that the commanding officer in each one of three of the domes remained alive, making it necessary for me to slay them personally, by the use of crude force. I regret exceedingly the lack of finish of this undertaking, and I apologize profoundly for it. I trust that you will not allow this information to become

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a matter of public knowledge"—and the apologetic, mentally sweating, really humiliated Palainian broke the connection.

Haynes and Kinnison stared at each other, for moments completely at a loss for words. The admiral first broke the silence.

"Hell's—jingling—bells!" he wrenched out, finally, and waved a hand at the points of light crowding so thickly his tactical tank. "A thing that the whole Grand Fleet couldn't do, and he does it alone, and then he *apologizes* for it as though he ought to be stood up in a corner or sent to bed without any supper!"

"Uh-huh, that's the way he is," Kinnison breathed, in awe. "What a brain!—what a man!"

Nadreck's black speedster arrived and a three-way conference was held. Both Haynes and Kinnison pressed him for the details of his really stupendous achievement, but he refused positively even to mention any phase of it.

"The matter is closed—finished," he declared, in a mood of anger and self-reproach which neither of the Tellurians had ever supposed that the gently scientific monster could assume. "I practically failed. It is the poorest piece of work of which I have been guilty since cubhood, and I desire and I insist that it shall not be mentioned again. If you wish to lay plans for the future, I will be very glad indeed to place at your disposal my small ability—which has now been shown to be even smaller than I had supposed—but if you insist upon discussing my fiasco, I shall forthwith go home. I will *not* discuss it. The record of it will remain permanently under Lensman's Seal. That is my last word."

And it was. Neither of the two Tellurians mentioned the subject, of course, either then or ever, but many other persons—including your historian—have done so, with no trace whatever of success. It is a shame, it is

positively outrageous, that no details are available of the actual fall of Onlo. No human mind can understand why Nadreck will not release his Seal, but the bitter fact of his refusal to do so has been made all too plain.

Thus, in all probability, it never will become publicly known how those monstrous Onlonians destroyed each other, nor how Nadreck penetrated the defensive screens of Onlo's embattled domes, nor in what fashion he warred upon the three surviving commanders. These matters, and many others of perhaps equal interest and value, must have been of such an epic nature that it is a cosmic crime that they cannot be recorded here; that this, one of the most important incidents of the campaign, must be mentioned merely and baldly as having happened. But, unless Nadreck relents—and he apparently never does—that is the starkly tragic fact.

Other Lensmen were called in then, and admirals and generals and other personages. It was decided to man the fortifications of Onlo immediately, from the several fleets of frigid-blooded poison breathers which made up a certain percentage of Civilization's forces. This decision was influenced markedly by Nadreck, who said in part:

"Onlo is a beautiful planet. Its atmosphere is perfect, its climate is ideal; not only for us of Palain VII, but also for the inhabitants of many other planets, such as—" and he mentioned some twenty names. "While I personally am not a fighter, there are many who are; and while those of a more warlike disposition man Onlo's defenses and weapons, my fellow researchers and I might very well be carrying on with the same type of work, which you fire-blooded oxygen breathers are doing upon Thrale and similar planets."

That was such an eminently sensible suggestion that it was adopted at once. The confer-

ence broke up. The selected sub-fleets sailed. Kinnison sought out the commander in chief.

"Well, sir, that's it—I hope. What do you think? Am I, or am I not, due for a spot of free time?" The Gray Lensman's face was drawn and grim.

"I wish I knew, son—but I don't." Eyes and voice were deeply troubled. "You ought to be . . . I hope you are . . . but you're the only judge of that, you know."

"Uh-huh . . . that is, I know how to find out . . . but I'm afraid to—afraid he'll say no. However, I'm going to see Chris first—talk it over with her. How about having a gig drop me down to the hospital?"

For he did not have to travel very far to find his fiancée. From the time of leaving Lyrane until the taking over of Thrale she had as a matter of course been chief nurse of the hospital ship *Pasteur*, and with the civilizing of that planet she had as automatically become chief nurse of the Patrol's Base Hospital there.

"Certainly, Kim—anything you want, whenever you please."

"Thanks, chief. Now that this fracas is finally over—if it is—I suppose that you'll have to take over as president of the Galactic Council?"

"I suppose so—after we clean Lyrane VIII, that you've been holding me away from so long—but I don't relish the thought. And you'll be Co-ordinator Kinnison."

"Uh-huh"—gloomily. "By Klono, I hate to put my Grays away! I'm not going to do it, either, until after we're married and really settled down into the job."

"Of course not. You'll be wearing them for some time yet, I'm thinking." Haynes' tone was distinctly envious. "Getting your job settled down into a routine one will take a long, long time. It will take years even to find out what it is really going to be."

"That's so, too," Kinnison brightened visibly. "Well, clear ether, President Haynes!" and he turned away, whistling unmelodiously—in fact, somewhat raucously—through his teeth.

XXIII.

At Base Hospital it was midnight. The two largest of Thrale's four major moons were visible, close together in the zenith, almost at the full; shining brilliantly from a cloudless, star-besprinkled sky upon the magnificent grounds.

Fountains splashed and tinkled musically. Masses of flowering shrubs, bordering meandering walks, flooded the still air with a perfume almost cloying in its intensity. No one who has once smelled the fragrance of Thralian thorn flower at midnight will ever forget it—it is as though the poignant sweetness of the mountain syringa has been blended harmoniously with the heavy, entrancing scent of the jasmine and the appealing pungency of the lily of the valley. Statues of gleaming white stone and of glinting metal were spaced infrequently over acres and acres of springy, close-clipped turf. Trees, not overhigh but massive of bole and of tremendous spread and thickness of foliage, cast shadows of impenetrable black.

"QX, Chris?" Kinnison Lensed the thought as he arrived on the grounds. She had known that he was coming. "Kinda late, I know, but I wanted to see you, and I know that you don't have to punch the clock."

"Surely, Kim"—and her low, infectious chuckle welled out. "What's the use of being a Red Lensman, else? This is just right—you couldn't make it any sooner, and tomorrow would have been too

late—much too late."

They met at the door and with each an arm around the other strolled wordless down a walk. Across the resilient sward they made their way and to a bench beneath one of the spreading trees.

Kinnison swept her into both arms, hers went eagerly around his neck. How long, how unutterably long it had been since they had stood thus, nurse's white crushed against Lensman's Gray!

"Chris . . . my Chris. How I love you!" he whispered, tense. "And now that I've got you again, by Klono's crimson claws, I'll never let you go!"

"Oh . . . oh, Kim, dear. I've missed you so terribly, Kim. If they separate us again, it will simply break my heart," she breathed, her low, rich voice pure music. Then womanlike, she faced the facts and made the man face them, too. "Let's sit down, Kim, and have this out. You know as well as I do that we can't go on if . . . if we can't . . . that's all."

They sat down upon the bench, arms still around each other. They had no need, these

Lensmen, of sight. No need of language, either, although upon this page their thoughts must be put into words. They did, however, have need—a profound need—of physical contact.

"I do not," the man declared vigorously. "We've got a right to some happiness, Chris, you and I. They can't keep us apart forever, sweetheart—we're going straight through with it this time."

"Uh-uh, Kim," she denied gently, shaking her spectacular head. "What would have happened if we'd have gone ahead before, leaving these horrible Thralians free to ruin Civilization?"

"But Mentor stopped us then," Kinnison argued. Deep down, he knew that if the Arisian called he would have to answer, but he argued nevertheless. "If the job wasn't done, he would have stopped us before we got this far—I think."

"You hope, you mean," the girl contradicted. "What makes you think—if you really do—that he might not wait until the ceremony has actually begun?"

"Not a thing in the universe. He might, at that," Kinnison

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confessed, bleakly.

"You've been afraid to ask him, haven't you?" Clarrissa pursued.

"But the job must be done!" Kinnison insisted, avoiding the question. "The prime minister—that Fossten—must have been the top; you know very well that there couldn't possibly be anything bigger than an Arisian to be back of Boskone. It's unthinkable! They've got no military organization left—not a beam hot enough to light a cigarette or a screen that would stop a firecracker. We have all their records—everything. Why, it's just a matter of routine now for the boys to uproot them completely; system by system, planet by planet."

"Uh-huh." Chris eyed him shrewdly, then in the dark. "Cogent. Really pellucid. As clear as so much crystal—and twice as fragile. If you're so sure, why not call Mentor and ask him, right now? You're not afraid of just the calling part, like I am; you're afraid of what he will say."

"I'm going to marry you before I do another lick of work of any kind, anywhere," he insisted doggedly.

"I just love to hear you say that, even if I do know that you're just blasting off!" She giggled sunnily and snuggled deeper into the curve of his arm. "I feel that way, too, but both of us know very well that if Mentor stops us... even at the altar—" Her thought slowed, became intense, solemn. "We're Lensmen, Kim, you and I. We both realize to the full just what that means. We'll have to muster jets enough, some way or other, to swing the load. Let's call him now, Kim, together. I just simply can't stand this not knowing... I can't, Kim... I can't!" Tears came hard and seldom to such a woman as Clarrissa MacDougall; but they came then—and they hurt.

"QX, ace." Kinnison patted

her back and her gorgeous head. "Let's go—but I tell you now that if he says 'no' I'll tell him to go hunt up an asteroid out on the Rim and take a swan dive off into intergalactic space."

She linked her mind with his, thinking in affectionate half reproach, "I'd like to, too, Kim, but that's pure baloney. You couldn't—" she broke off as he hurried their joint thought to Arisia the Old, going on frantically:

"You think at him, Kim, and I'll just listen. He scares me into a shrinking, quivering pulp!"

"QX, ace," he said again. Then: "Is it permissible that we do what we are about to do?" he asked crisply of Arisia's ancient sage.

"Ah, 'tis Kinnison and MacDougall; once of Tellus, henceforth of Klovvia," the calmly unsurprised thought rolled in. "I was expecting you at this time. Any mind, however far from competent, could have visualized this event in its entirety. That which you contemplate is not merely permissible; it has now become necessary." And as usual, without tapering off or leave-taking, Mentor broke the line of thought.

The two clung together rapturously then for minutes, but something was obtruding itself disquietingly upon the nurse's mind.

"But his thought was 'necessary,' Kim?" she asked, rather than said. "Isn't there sort of a sinister connotation in that, somewhere? What did he mean?"

"Nothing—exactly nothing," Kinnison assured her, comfortably. "He's got a complete picture of the macrocosmic universe in his mind—his 'visualization of the Cosmic All,' he calls it—and in it we get married now, just as I've been telling you we are going to. Since it gripes him no end to have even the tiniest thing not to conform to his visualization, our marriage is NEC-

It was not far to the Disbursing Office, so she walked; win-

Clarrissa felt slightly dazed. She had gone in there to get the couple of hundred credits which represented her total wealth; but instead of getting it she had meekly surrendered her savings to the Patrol and had been given—what? She leafed through the little book. One hundred blue-white slips; small things, smaller than currency bills. A little printing, two lines for description, a blank for figures, a space for signature, and a plastic-covered oblong area for thumbprint. That was all—but what an all! Any one of those slips, she knew, would be honored without hesitation or question for any amount of cash money she pleased to draw; for any object or thing she chose to buy. Any-

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thing—absolutely anything—from a pair of half-credit stockings up to and beyond a hundred-million-credit spaceship. ANYTHING! The thought chilled her buoyant spirit, took away her zest for shopping.

"Kim, I can't!" she wailed through her Lens. "Why didn't they give me my own money and let me spend it the way I please?"

"Hold everything, ace—I'll be with you in a sec." He wasn't quite—but it was not long. "You can get all the money you want, you know—just give them a chit."

"I know, but all I wanted was my own money. I didn't ask for this stuff!"

"None of that, Chris—when you get to be a Lensman, you've got to take what goes with it. Besides, if you spend money foolishly all the rest of your life, the Patrol knows that it will still owe you plenty for what you did on Lyrane II. Where do you want to begin?"

"Brenleer's," she decided, after she had been partially convinced. "They aren't the largest, but they give real quality at a fair price."

At the shop the two Lensmen were recognized at sight and Brenleer himself did the honors.

"Clothes," the girl said succinctly, with an all-inclusive wave of her hand. "All kinds of clothes, except nurse's uniforms."

They were ushered into a private room and Kinnison wriggled as mannequins began to appear before them in various degrees of enclothingment.

"This is no place for me," he declared. "I'll see you later, Chris. How long—half an hour or so?"

"Half an hour!" The nurse giggled, and:

"She will be here all the rest of today, and most of the time for a week," the courtier informed him severely—and she was.

"Oh, Kim, I'm having the most marvelous time!" she told him excitedly, a few days later. "But it makes me feel sick to think of how much of the Patrol's money I'm spending."

"You may think that you're spending money, but you aren't," he informed her, cryptically.

"Huh? What do you mean?" she demanded, but he would not talk.

She found out, however, after the long-drawn-out business of selecting and matching and designing and fitting was over.

"You have seen me in civvies only a couple of times, and I got myself all pretied up in the beauty shop." She posed provocatively. "Do you like me, Kim?"

"Like you!" The man could scarcely speak. She had been a seven-sector call-out in faded moleskin breeches and a patched shirt. She had been a thionite dream in uniform. But now—radiantly, vibrantly beautiful, a symphony in her favorite dark green. "Words fail, ace. Thoughts, too. They fold up and quit. The universe's best, is all I can say—"

And—later—they sought out Brenleer.

"I would like to ask you to do me a tremendous favor," the merchant said hesitantly, without filling any of the blanks upon the credit slip the girl had proffered. "If, instead of paying for these things, you would write upon this voucher the date and 'my fall outfit and much of my trousseau were made by Brenleer of Thrale—'" His voice expired upon a wistful note.

"Why . . . I never even thought of such a thing. Would it be quite ethical, do you think, Kim?"

"You said that he gives value for price, so I don't see why not. Lots of things they never let any of us pay for—" Then, to Brenleer, "Never thought of that angle, of what a terrific draw she would be. I suppose that this

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Kinnison was surprised at the sincerity with which they acclaimed him; he was amazed at the genuineness and the intensity of their adoption of his Chris as their own. He had been afraid that some of them would think that he was throwing his weight around when he violated precedent by making her a Lensman. He had been afraid of animosity and ill will. He had been afraid that outraged masculine pride would set up a sex antagonism. But if any of these things existed, the keenest use of his every penetrant sense could not discover them.

Instead, the human Lensmen literally mobbed her as, en masse, they took her to their collective bosom. No party, wherever or for what reason held, was complete without her. If she ever had less than ten escorts at once, she was slighted. They ran her ragged, they danced her slippers off, they stuffed her to repletion, they would not let her sleep, they granted her the privacy of a goldfish—and she loved every tumultuous second of it.

She had wanted, as she had told Haynes and Lacy so long ago, a big wedding; but this one was already out of hand and was growing more so by the minute.

The idea of holding it in a church had been abandoned long since; now it became clear that the biggest armory of Klovvia would not hold even half of the Lensmen, to say nothing of the notables and dignitaries who had come so far. It would simply have to be the Stadium; a bowl so vast that no previous crowd had filled one tenth of its seats. Seeing and hearing there were excellent, however, as the spectators did not look at the scene itself, but into visiplates comfortably close.

Even the Stadium could not accommodate that throng, hence speakers and plates were run outside, clear up to the space-field fence. And, although nei-

ther of the principals knew it, this marriage had so fired public interest that Universal Telenews men had already arranged the hookup which was to carry it to every planet of Civilization. The number of entities who thus saw and heard that wedding has been estimated, but the figures are too fantastic to be repeated here.

But it was in no sense a circus. No ceremony ever held, in home or in church or in cathedral, was ever more solemn. For when half a million Lensmen concentrate upon solemnity, it prevails—no levity is possible within a radius of miles.

The whole vast bowl was gay with flowers—it seemed as though a state must have been stripped of blooms to furnish so many—and ferns and white ribbons were everywhere. There was a mighty organ, which pealed out triumphal melody as the bridal parties marched down the aisles, subsiding into a lilting accompaniment as the betrothed couple ascended the white-brocaded stairway and faced the Lensman-chaplain in the heavily garlanded little open-air chapel. The minister raised both hands. The massed Patrolmen and nurses stood at attention. A profound silence fell.

"Dearily beloved—" The grand old service—short and simple, but utterly impressive—was soon over. Then, as Kinnison kissed his wife, half a million Lensed members were thrust upward in silent salute.

Through a double lane of flowing Lenses the wedding party made its way up to the locked and guarded gate of the space-field, upon which lay the *Dauntless*—the superdreadnought "yacht" in which the Kinnisons were to take a honeymoon voyage to distant Tellus. The gate opened. The couple, accompanied by the port admiral and the surgeon general, stepped into the car, which sped out to the battleship; and as it did so

the crowd loosed its pent-up feelings in a prolonged outburst of cheering.

And as the newlyweds walked up the gangplank, Kinnison turned his head and shouted to Haynes:

"You've been griping so long about Lyrane VIII, chief—I forgot to say that you can go mop up on it now!"

ACKNOWLEDGMENT

Your historian, not wishing to take credit which is not rightfully his, wishes to say here that without the fine co-operation of many persons and entities this history must have been of much less value and importance than it now is.

First, of course, there were the Lensmen. It is unfortunate that Nadreck of Palain VII could not be induced either to release his spool of the Fall of Onlo or to enlarge upon his other undertakings.

Co-ordinator Kinnison, Worsel of Velantia, and Tregonsee of Rigel IV, however, were splendidly cooperative, giving in personal conver-

sations much highly useful material which is not heretofore of public record. The gracious and queenly Red Lensman also was of great assistance.

Dr. James R. Enright was both prolific and masterly in deducing that certain otherwise necessarily obscure events and sequences must have in fact occurred, and it is gratefully admitted here that the author has drawn heavily upon "Dr. Jim's" profound knowledge of the mind.

The Galactic Roamers, those intrepid spacemen, assisted no little: E. Everett Evans, their chief communications officer, Paul Leavy, Jr., Alfred Ashley, F. Edwin Counts; to name only a few who aided in the selection, arrangement, and presentation of material.

Verna Trestrail, the exquisite connoisseur, was of help, not only by virtue of her knowledge of the jewels of Lonabar, but also in her interpretations of many things concerning Ilona Potter of which Ilona Henderson—characteristically—will not speak.

To all these, and to many others whose help was only slightly less, the writer extends his sincere thanks.

Edward E. Smith.

THE END.

IF SEEING'S BELIEVING—

It's naturally not too hard to spot the really bright suns—the stars of great intrinsic brilliance rather than mere apparent brilliance. They don't hide their light under bushels or anything else. If you're interested, here's a list of the readily located stars visible from the United States which are 2,000 or more times as luminous as the Sun. (And the Sun is, remember, considerably more brilliant than the average star; there are many 1/10,000th as bright as Sol, but very few 10,000 times as bright.)

Star

Deneb—Abs. Mag. -8.7, 260,000 times as bright as the Sun. Distant 3,200 light years. Visible May to January, in the tail of Cygnus, the Swan. Also forms the top of the Northern Cross. Greatest intrinsic brilliance of any star visible from Earth without a telescope.

Rigel—Abs. Mag. -5.7, 17,500 times as bright as the Sun. Distant 540 light years. It forms the left foot of Orion, visible from November to April.

Bellatrix—Abs. Mag. -4.4, 5,000 times the Sun. Distant 540 light years. Also in Orion. It forms the Hunter's left shoulder, and visible also from November to April.

Epsilon Ori—Abs. Mag. -3.7, 2,600 times the Sun. Distant 400 light years. The constellation Orion is unique in the number of enormously brilliant suns forming it; Alpha Ori—the brightest in apparent magnitude—is Betelgeuse, Abs. Mag. -3.5. Second in apparent brightness, and hence Beta Ori, is Rigel, second brightest in absolute brilliance of stars visible without telescopic aid. Bellatrix is Gamma Ori. Epsilon Ori is apparently brighter than the second magnitude, but with so many still more brilliant stars nearby, acquired no common name.

Spica—Abs. Mag. -3.6, 2,300 times Sol. Distant 300 light years. Brightest star in Virgo, the Virgin. Visible March to August.

Betelgeuse—Abs. Mag. -3.5, 2,200 times Sol. Distant 270 light years. Right shoulder of Orion—visible November to April.

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